Supplement to ENGINEERING NEWS. New York, December 2, 1909.

CONSTRUCTION NEWS

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CONSTRUCTION NEWS.

Plans and Specifications on File.

(* *denotes that this work is advertised in Engineering News.*)

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RAILWAYS.

(* *denotes that this work is advertised in Engineering News.*)

BIRMINGHAM, CANTON & VICKSBURG.—Incorporated in Mississippi by W. A. Wall, of Meridian, Miss.; William Cornell, of Lake, Miss.; W. J. Francis, of Birmingham, Ala., and C. M. Whitworth, of Mendenhall, Miss. The eastern terminal is Birmingham and the western terminal is Vicksburg. The proposed line is through the counties of Warren, Hinds, Madison, Leake, Neshoba, Kemper or Winston, Noxubee or Lowndes. The same parties incorporated the Gainesville & Southwestern R. R. Co., and the Meridian & Pascagoula R. R. & Steamship Co. The southwestern terminus of the Gainesville & Southwestern R. R. is Nerketa, a small village in Kemper County, Miss., and the northeastern terminus is Gainesville, Ala. The southern terminal of the Meridian & Pascagoula Railroad & Steamship Co. is Pascagoula, Miss., and the northern terminal Memphis, Tenn.

BUFFALO & SUSQUEHANNA.—Company has just awarded contracts for the building of a new railroad north of Pittsburg. The general contract for building the line was awarded to FRANK GRECO, of Galeton, Pa., and the contract for masonry and wooden trestle work was given to J. S. BRADY, of Corning, N. Y., and the AMERICAN BRIDGE CO., of Pittsburg, was given the contract for the steel bridges. The road, which will be 20 miles long, will extend from Keating Summit, Pa., to Potato Creek, and is a part of the extension of coal roads outlined some time ago by the Buffalo & Susquehanna. Grading will be started at once and it is expected that the road will be ready for service some time after the first of the year. Contracts for other extensions to coal fields will be awarded within the next few months so that actual construction can be started early next year. While plans have been completed for the rebuilding of a portion of the road south from Juneau Junction, it has been announced that work will not be started this year. H. Herden is Ch. Engr., Galeton, Pa.

CHICAGO & EASTERN ILLINOIS.—Contract for the first mile of the Chicago & Eastern Illinois branch, from Joppa, Ill., to Metropolis, has been let to E. MALONEY. The C. & E. I. will build three miles and connect the Burlington branch into Metropolis at Rocky Branch.

CHICAGO, MILWAUKEE & PUGET SOUND.—A branch probably will be built from a point on the main line near Moncton, in King County, Wash., northwest, generally following the Snoqualmie and the Snohomish rivers to Everett, about 50 miles. Noted on June 24 and April 8.

COPPER RIVER & NORTHWESTERN.—This railroad will be completed from Cordova to the inland terminus at Kenaicoot, Alaska, a distance of 200 miles, by the end of next year, according to a statement made recently by E. E. Hawkins, Ch. Engr. The road has now been completed 96 miles from Cordova and an additional six miles of track will have been laid by Dec. 1. No track will be laid during the winter months, but a force of 600 rockmen will be kept at work in Wood Canyon building roadbed and tunnels. This canyon is 32 miles long and represents some of the most difficult engineering problems encountered on the Copper River road. As soon as the days begin to get longer trackwork will be resumed and by April 1 Mr. Hawkins expects to have 4,000 men at work in the construction camps. Surveys have been made along the Copper River above Kenaicoot and as soon as the country is settled enough to provide sufficient traffic the road will be extended into the interior toward Fairbanks. M. J. HENEY, 514 Coleman Bldg., Seattle, Wash., is the contractor. Noted fully on Aug. 19.

DOLAND & SOUTHEASTERN (Chicago & Northwestern).—Incorporated in South Dakota with capital of $5,000. Office at Huron, S. Dak. Company will build a line from Doland, S. Dak., south to Iriquois, through Spink and Beadle Counties, 40 miles. The incorporators include: M. Hughitt, W. A. Gardner, J. M. Whitman, R. H. Ashton, J. F. Cleveland and J. D. Caldwell, of Chicago, and A. K. Gardner, of Huron.

ERIE.—The Public Service Commission, Second District, Albany, N. Y., has issued an order as to the building of crossings in connection with the improvement of the Buffalo division of the Erie R. R., between Hornell, N. Y., and Hunt. The change in grade or alinement of tracks covers a distance of eight miles through the towns of Burns, Canaserga and Dalton. The order provides that the railway company shall do the work in connection with the construction of all crossings at its own expense. The improvements in the town of Burns provide for carrying three highways over the railway tracks on steel bridges and one highway is to pass under the railway tracks, in the towns of Nunda and Portage. One of the existing highways at each place will be carried over the railway tracks on a steel bridge. F. L. Stuart is Ch. Engr., 50 Church St., New York.

GAINESVILLE & SOUTHWESTERN.—See Birmingham, Canton & Vicksburg.

GUADALAJARA & CHAMELA.—Contract for the construction of the Guadalajara & Chamela R. R. will be let early during the coming year. The concession and other holdings of this road were recently acquired by a syndicate of French and English people, represented by Paul de Vilaine, who is extensively interested in mines in the territory which the road is to penetrate. The Federal and State subsidies in aid of the project aggregate $5,000 Mexican currency per mile. The proposed road is to run from La Vega, a station on the Ameca branch of the National Railways of Mexico, to the Pacific port of Chamela.

KANAWHA, GLEN JEAN & EASTERN.—Contracts have been let to LIPSCOMB & MORRIS and to G. MILLER & CO., both of Mount Hope, W. Va., to build from MacDonald south to Cirtsville, W. Va., six miles. Thos. Nichol, Glen Jean, W. Va., is Ch. Engr.

MARBURY & KINGSTON.—Incorporated in Alabama, with $25,000 capital, to build from Marbury, Ala., on the Louisville & Nashville, southwest to Kingston, on the Mobile & Ohio, in Autauga County, about 10 miles. D. H. Marbury, of the Marbury Lumber Co., is Pres.; J. H. Rainer, Secy. and Treas., of Union Springs, Ala. W. B. Smythe, of Nashville, Tenn., is interested. Noted last week.

MERIDIAN & PASCAGOULA R. R. & S. S. CO.—See Birmingham, Canton & Vicksburg.

MEXICO.—It is announced that the Robert N. Towne mining and smelting interests will build a railway between the city of Durango and Gutierrez, a station on the Mexican Central R. R. in the state of Zacatecas. The survey for the proposed line has been made and the contract for its construction will soon be let. It will be about 125 miles long and will pass through the mining districts of Sombrerete and Chalchihuites in both of which large mining properties owned by the Towne interests are situated. V. P. Safford, General Manager of the Mexican Northern R. R., with headquarters at Escalon, state of Chihuahua, is looking after the details of the proposed new line owned by the Towne interests.

The Cananea Copper Co. interests will again call for bids for construction of its proposed railway to run from Del Rio to Agua Prieta, Sonora, and from the latter point to Guzman station on the line of the Mexican Central. The survey for the proposed line was made some time ago and bids called for grading the roadbed. The proposition was dropped when the announcement was made by the Harriman interests that they already held an exclusive concession from the Government for building a railroad through this border territory. It is announced that this obstacle has now been overcofe and that the Cananea Copper Co.'s original plans for building the road will be carried out.

Harris Walthal, representing a syndicate of Englishmen, has obtained a favorable concession from the Government of the state of Durango for the construction of a railroad from the city of Durango to the town of San Dimas, situated in the heart of the Sierra Madre Mountains. The proposed road will be about 125 miles long and will penetrate one of the richest mining districts in Mexico.

MIDLAND CONTINENTAL.—Grading contract has been awarded to H. A. WHITTIER, of Northfield, Minn., covering a distance of 100 miles. It is stated that contract has been let to JOHN T. ADAMS, of Columbus, Ohio, for building about 200 miles of railroad for the Midland Continental R. R. in North Dakota. This railroad is designed as a north-and-south line connecting Winnipeg, Man., with Galveston, Tex. The first 40 miles of the road will be in operation by July 1.

NEW YORK CENTRAL & HUDSON RIVER.—The Public Service Commission, Second District, Albany, N. Y., has authorized a sale of stock, amounting to $44,658,000, which will include the following improvements: Electrification of lines, station improvements, etc., in New York City and vicinity, $13,920,400; grade crossing eliminations in Buffalo, $674,400; Utica, $220,000; Newburg, $125,000; new passenger stations at Rochester, $750,000; Ravena, $45,000; Watertown, $258,500; site for passenger station, Buffalo, $100,000; electrification of West Shore R. R. from Utica to Syracuse, $112,900; double tracking and grade revisions from Syracuse to Buffalo, $1,580,200; Watertown Junction to Richland, $582,000; Utica to Stittville, $144,700; automatic signals to shorten blocks, Croton to Buffalo, $680,000; motive power, facilities and improvements, $623,200; signals, $561,600. Noted on Nov. 11.

PARRAL & DURANGO.—An extension may be constructed southward to Guanacevi, Durango, Mex., a distance of 116 miles. Jas. I. Long, Gen. Mgr., Parral, Mex.; W. G. Muzzy, Secy., 710 Westinghouse Bldg., Pittsburg.

ST. LOUIS, IRON MOUNTAIN & SOUTHERN.—A special meeting of the stockholders will be held in the Missouri Pacific Bldg., St. Louis, on Feb. 2, to act upon the proposition to purchase and acquire all or any part of the railroads and other property, assets and franchises of all or any of the following-named railroad companies: Arkansas & Louisiana Ry. Co., Arkansas Midland R. R. Co., Arkansas Southwestern Ry. Co., The Brinkley, Helena & Indian Bay R. R.,

Co., Coal Belt Ry. Co., Eldorado & Bastrop Ry. Co., Farmerville & Southern R. R. Co., Garland Western Ry. Co., Gurdon & Ft. Smith R. R. Co., Gurdon & Fort Smith Northern Ry. Co., Herrin Ry., Johnson City Ry Co., Kansas & Arkansas Valley Ry., Little Rock & Hot Springs Western R. R. Co., The Little Rock & Monroe Ry. Co., Little Rock Junction Ry., Mississippi River, Hamburg & Western Ry. Co., Natchez & Western Ry. Co., New Orleans & Northwestern R. R. Co., Pine Bluff & Western R. R. Co., Springfield Southwestern Ry. Co., St. Louis, Watkins & Gulf Ry. Co., and Wabash Southern Ry. Co.

VERA CRUZ & ISTHMUS.—Company has let the contract for grading its new branch line that is to run from Rivas to San Andres Tuxtla, a distance of about 50 miles to the firm of McGAVOCK & BORROWS, of the City of Mexico. This firm also has subcontracts on the Southern Pacific Railroad of Mexico.

ELECTRIC RAILWAYS.

ROCHESTER, N. Y.—The Public Service Commission, Second District, Albany, N. Y., has given its permission and approval to this company that it may exercise the franchise granted it by the village of Middleport. The approval is upon the condition that prior to the construction of its transmission line pursuant to the terms of this franchise, the company shall submit to the commission plans and specifications for such construction and that no construction be made until such plans and specifications are approved. J. M. Campbell is Pres. and Gen. Mgr., P. O. Box 1010, Rochester.

HORNELL, N. Y.—The Public Service Commission, Second District, Albany, has received an application from the Hornell-Bath Interurban Ry. Co. for permission to exercise franchises. The company proposes to build an electric line betwen Hornell and Bath, 24 miles, as noted on Aug. 5. The capital stock is $250,000. The company asks permission to issue $250,000 of stock and $550,000 of bonds. The directors included Chas. Adsit, V. N. Armsted and John M. Finch, of Hornell, and J. F. Turk, of Hammondsport, N. Y.

HAMILTON, N. Y.—Authority has been granted to the Utica Southern R. R. Co. by the Public Service Commission, Second District, Albany, to build an additional extension to its proposed line from the southerly line of Hamilton, via Earlville and Sherburne through Norwich, 27 miles. The company has been previously granted permission to build from Clinton to Hamilton, with a branch between Deansboro and Waterville, 26 miles. The company is authorized to mortgage the extension and to issue bonds to the amount of $628,000, par value, to be used for constructing and equipping the extension from Hamilton to Norwich, and is further authorized to issue $400,000 5% non-cumulative preferred stock, on condition that the proceeds be devoted to the construction and equipment of the extension. E. H. Risley is Secy., Utica, N. Y. Noted on July 29.

NEW CITY, N. Y.—Construction work probably will not be started by the Rockland R. R. Co. until next spring, it is stated. As noted on July 22, this railroad will extend from Tenafly, N. J., northerly through Creskill, Demarest, Closter, Norwood and Northvale, to Tappan, N. Y., thence through Sparkill, Piermont, Grand View, South Nyack, Nyack, New City, Congers, Haverstraw and West Haverstraw to Stony Point, about 34 miles with a branch from Nyack westerly via Nanuet and Spring Valley to Suffern, 14 miles. The estimated cost of the line is $2,500,000. Surveys have been made for a line east of the Sparkill-Tenafly section from Sparkill, N. Y., south to Fort Lee, N. J., the construction of which will be taken up at a later date. The New York Public Service Commission, Second District, has granted permission to the company to build in Rockland County, and similar action has been taken by the Board of Supervisors of Rockland County. B. A. Hegeman, Jr., is Pres.; W. O. Jacquette, Vice-Pres.; A. C. Miller, Second Vice-Pres. and Gen. Mgr., 165 Broadway; S. S. Delano, Treas.; C. J. Hardy, Secy. and Counsel. W. H. Coverdale is Ch. Engr., 66 Broadway, New York. Noted on June 17.

MORRISTOWN, N. J.—The Morris County Traction Co., it is announced, will place contracts at once for the construction of five miles of single track with turnouts. Address, G. C. Gochnauer, Pres., Morris County Construction Co., Morristown.

FREDERICKSBURG, PA.—Application will be made at once by the Berks County Traction Co. for a charter to build an electric railway from Wyomissing to Fredericksburg, a distance of 35 miles. Applicants for the charter are W. C. Riffert, Lewis Crater, A. S. Seidel and Henry Fry, of Fredericksburg.

PITTSBURG, PA.—Plans are under way for construction of the Altoona, Hollidaysburg & Bedford St. Ry. It will connect Altoona, Hollidaysburg, Everett, Bedford and Roaring Springs. Capital stock, authorized, $1,200,000. Bonds, authorized, $1,200,000. Officers: John G. Burns, Pres., Pittsburg; J. Weidman Murray, Vice-Pres.; George W. Burke, Secy. and Treas., Pittsburg.

COLONIAL BEACH, VA.—The Municipal Council has granted a franchise to John G. Capers, Evans Bldg., Washington, D. C., for the construction of an electric railway from Colonial Beach to Quantico, Md., 22 miles.

ANDERSON, S. C.—The Anderson Traction Co. has been purchased from E. W. Roberts by a syndicate, composed of E. A. Smyth, trustee, associated with L. W. Parker, W. J. Thackston, H. J. Haynesworth and J. B. and B. N. Duke, the two last of whom are associated with the American Tobacco Co. The new owners have taken the property over with the purpose of extending the line from Belton to Greenville and Spartanburg. The purchase price was not given out.

FLORENCE, S. C.—The City Council has granted a 50-year franchise to John L. Barringer, P. A. Wilcox, A. J. Brown and S. S. Ingman for the use of all the streets of the city for the building of an electric street railway. Mr. Barringer is Pres.; Mr. Wilcox, Vice-Pres.; Mr. Brown, Secy.-Treas., and Mr. Ingman is Gen. Mgr. of the Black Creek Power Co., which proposes to build a 12-mile railway between Darlington and Florence and will also construct its own power plant. Capital stock, $300,000.

PARIS, ILL.—The Paris & Northern Ry. Co. is now obtaining the right-of-way for its proposed line which is to connect Paris and Danville, Ill., 22 miles. Capital stock, authorized and issued, $5,000. W. M. Bridgett is Pres. and Purchasing Agent; Geo. G. Rowland, Vice-Pres.; Charles Troup, Secy.; L. C. McGee, Treas.; W. H. Martin, Ch. Engr., all of Danville.

BRECKENRIDGE, MINN.—Construction probably will be commenced on the Wahpeton & Breckenridge St. Ry. next spring. The power will be furnished by the Otter Tail Power Co., Fergus Falls, Minn. The shops will be located at Breckenridge, and an amusement park at Island Park. A. J. Divet is Pres.; Henry Connolly, Vice-Pres., Wahpeton, N. Dak.; D. J. Jines, Secy., and J. H. Ehlert, Treas., and F. L. Strum, Gen. Mgr., Breckenridge. Noted on Nov. 4.

OMAHA, NEB.—The Nebraska Transportation Co. will build an electric line connecting Omaha and Fremont, on which it is proposed to begin construction next spring. C. W. Baker is Pres., Omaha.

NOWATA, OKLA.—The Coffeyville & Nowata Ry. & Power Co. will begin construction next month on its projected line which will extend from Nowata, Delaware, Lenatah, South Coffeyville, Okla., and Coffeyville, Kan., 25 miles. It is the intention of the company to furnish power to these cities. Capital stock, authorized, $200,000. W. V. Thraves, Nowata, Pres. and Gen. Mgr.; W. P .Brown, Coffeyville, Kan., Vice-Pres.; J. A. Tillotson, Nowata, Secy. and Treas.; E. P. Hannaford, Nowata, Ch. Engr. Noted on Oct. 28.

OKLAHOMA CITY, OKLA.—The Citizens Traction Co. has been chartered in Oklahoma to build an electric railway from Oklohoma City to Shawnee through Oklahoma, Pottawatomie, Lincoln, Cleveland, McLain, Garvin and Murray counties and possibly later a line between Oklahoma City and Sulphur. Capital stock, $300,000. Directors: L. E. Patterson, W. F. Harn and J. H. Winans, Oklahoma City; Homer S. Hurst, of Holdenville, and Alfred Hare, of Shawnee.

GRAND JUNCTION, COLO.—The Grand Junction St. Ry. Co. will begin work at once on the line to Fruita, 15½ miles and will have it in operation by June 1, 1910. E. A. Sunderlin is Gen. Mgr., Mineral Exchange Bldg., Colorado Springs.

OLYMPIA, WASH.—Eldridge Wheeler, of Montesano, Wash., has made application to the Board of County Commissioners for a franchise for building a line of electric railway from Olympia to Hoquiam.

VALLEJO, CAL.—The directors of the Vallejo & Northern Elec. Ry. Co., which will build between Sacramento and Vallejo, and which will soon be in course of construction, have filed articles of incorporation with the County Clerk of Sacramento. The capitalization of the company is $2,500,000, with $119,000 of the capital stock paid up. From the terminus of the road at Vallejo the line runs to Napa Junction, Cordelia, Fairfield, Cement, Broderick and to Sacramento. Many branch lines are contemplated. The directors are Thomas T. C .Gregory, John W. Bauman, William Pierce and Ernest D. Holly, of Suisun, and Winfield R. Madden, of Dixon.

PHOENIX, ARIZ.—Construction will begin soon on the Phoenix, Tempe & Mesa R. R., which will extend from Phoenix to Mesa, via Tempe, 17 miles. Company will operate four gasoline motor cars upon the completion of the line. Capital stock authorized, $1,000,000. H. J. Bennett, Phoenix, is Pres., Gen. Mgr. and Pur. Agent; Andrew Neilson, Tempe, Vice-Pres.; M. L. Vieux, Phoenix, Secy.; L. M. Hoghe, Phoenix, Treas.; D. F. Reynolds, Los Angeles, Cal., is Ch. Engr.

LIGHT AND POWER PLANTS.

(* *denotes that this work is advertised in Engineering News.*)

LEWISTON, ME.—The Union Water Power Co. has purchased the water power at Clark's Rip, about eight miles above this city. It is understood that a large amount of land has been bought, so that the work of making improvements will not be hampered in any way, and that a new and modern dam is to be erected soon and an electric power station installed. The plant will probably be equipped to develop about 11,000 HP., which will be used to run the textile and industrial plants of the city.

WATERBURY, CONN.—FRED. A. LEY & CO., INC., Waterbury, have been awarded contract for the mason work for a new power house and boiler house to be erected on Hamilton Ave., for the Scovill Mfg. Co. There will be two buildings, one 34 × 70 ft., and the other 19 × 70 ft., built of brick, with concrete foundations and tar and gravel roofing.

NEW BRITAIN, CONN.—The Landers, Frary & Clark Co., New Britain, is constructing a large electric power plant which when completed will furnish electricity to operate its entire plant. The main power house will be 104 × 63 ft., 1 story high, and the boiler house 87 × 72 ft. The equipment of the plant is to include a 1,500-HP. McIntosh-Seymour cross-compound engine direct connected to 1,000-KW. alternating-current generator and an engine will be installed for auxiliary purposes. Seven 250-HP. Manning boilers have been installed. The remainder of the equipment has not yet been decided upon. It is expected to have the plant completed by February, 1910.

SOUTH COVENTRY, CONN.—The Rockville-Willimantic Lighting Co. is contemplating the construction of a transformer station on "The Flats," near South Coventry, for the distribution of electricity for lamps and motors here.

NEW HAVEN, CONN.—The following bid was submitted to the City Council by the United Illuminating Co., G. L. Clock, Ch. Engr., for furnishing electricity for street lighting for a term of four years: For supplying from 625 to 700 lamps at 20 cts. per night per lamp, or $73 per lamp per year; over 700 lamps at 19½ cts. each per night. The New Haven Gas Light Co. submitted a bid for gas lamps at $21.80 per lamp per year, of which there are 1,300.

MONROE, N. Y.—The Orange & Rockland Electric Co., R. W. Smith, Pres., Monroe, is in the market for a direct-connected, 60-cycle, 3-phase, 2,200 or 2,300-volt unit of not less than 500 KW. nor more than 1,000 KW.

CAMILLUS, N. Y.—The Town Board has granted a franchise to Moritz Mayer, Syracuse, N. Y., to erect a transmission line from the substation of Niagara Falls transmission lines at Solvay to this village for the purpose of furnishing electricity for lamps and motors for the Camillus Cutlery Works, of which Mr. Mayer is manager. Electrical service will also be furnished to any resident of the town. Negotiations are now under way between Mr. Mayer and the Syracuse Lighting Co. in regard to furnishing electricity for the service.

*KINGS PARK, N. Y.—Bids are asked by the State Commission in Lunacy, Albany, until 3 p. m., Dec. 15, for the construction of a power plant, connecting mains, electric feeder cables to laundry, transformers and distributing board, at the Kings Park State Hospital, Kings Park. T. E. McGarr is Secy. Comn.

NEW YORK, N. Y.—Contract has been awarded by the Department of Corrections for furnishing all labor and material required to install a new heating system in the Second District Prison, Jefferson Market, Tenth St. and Sixth Ave. to ALBERT WINTERWITZ, 237 East 72d St., at $5,200.

NANTICOKE, PA.—Bids will be received until Dec. 14 by Clem J. Knoll, Boro. Secy., for lighting certain streets with electric arc lights for terms of one, three and five years, from May 1, 1910.

PHILADELPHIA, PA.—Bids were opened by the city on Nov. 13 for the electric lighting of the city next year. The Philadelphia Electric Co., A. H. Manwaring, Ch. Elecn., was the only bidder, at the same prices paid the company under this year's contract, which will amount to about $1,182,000. For electric lights in West Philadelphia and in North Philadelphia, north from Allegheny Ave., the price was 28 cts. a light for every night and for electric lights in the remainder of the city, south of Allegheny Ave., 27 cts., and 25 cts. for lights on poles owned by the city and connected with city service cables and 29 cts. for lights on city poles connected with the bidder's service cables. Number of arc lights operated this year throughout city, 11,807.

George R. Stearns, Dir. Pub. Wks., has awarded contract for the maintenance of gasoline lamps next year to the WELSBACH GAS LIGHT CO., 922 Chestnut St., Philadelphia, at $29 per lamp, which is the price paid that company under its current contract for the same work. To the same company was awarded contract for new lampposts, as required, at $7.50 as compared with $9 for each post paid under this year's contract. There are about 17,000 gasoline lamps throughout the city, representing a maintenance cost each year of about $500,000.

WILMINGTON, DEL.—Plans are being considered for establishing municipal conduits for placing all wires underground. It is now proposed that the city purchase the conduits already installed by the local telephone companies and rent them with others to be installed to companies maintaining wires. The Street and Sewer Commission is securing data for the cost of installation and maintenance and the rentals to be charged for space in conduits.

PULASKI, VA.—Bids are wanted by S. S. Wall, Supt. Light Plant, for new and second-hand guaranteed machinery as follows: One 200-HP. tubular boiler, complete; one 150-HP. horizontal engine, suitable for direct-connection to 100-KW. alternator, r.p.m. 275; one 100-KW. alternator, 3-phase, 60-cycle, 275 r.p.m.; one 75-KW. alternator, 3-phase, 60-cycle, 270 r.p.m.; six 5-KW. transformers, 60-cycle; a switchboard, suitable for above alternators.

ROXBORO, N. C.—J. MAXWELL, of the General Electric Co., Continental Trust Bldg., Baltimore, Md., has secured contract to construct municipal electric light plant here.

ROCK HILL, S. C.—See item under Water Supply—Irrigation.

MACON, GA.—Work will soon start on the construction of power transmission lines of the Central Georgie Power Co. The first line will be run from the power plant on the Ocmulgee River, near Jackson, Ga., to Macon, via Bibb and Forsyth, Ga. A line will probably be built from Forsyth to Griffin, Ga., and thence to Atlanta, Ga.

GURLEY, ALA.—The GURLEY LIGHT & POWER CO., lately incorporated, has been granted franchise to erect an electric light plant and has secured a contract to furnish electricity to light the streets of the town.

FORT PAYNE, ALA.—The Fort Payne Fuel & Iron Co. is contemplating the installation of an electric light plant to supply electricity to manufacturing plants. E. C. Drew is Pres.

NATCHEZ, MISS.—Additional equipment is being installed in the power station of the Southern Railway & Light Co., T. C. Donald, Ch. Electrician, which includes a 300-KW. alternating-current generator to furnish electricity for lighting service and a 300-KW. direct-current machine for street railway service.

ALEXANDRIA, LA.—Bids will be received until Dec. 20 for the new work at the electric light plant and water-works. Cost, about $40,000. I. W. Sylvester is City Engr.

MURRAY, KY.—See item under Water Supply—Irigation.

EVANSVILLE, IND.—The Evansville Public Service Co., recently organized, will build and equip a heat, light and power plant. Estimated cost, $1,000,000.

SHIRLEY, IND.—MICHAEL GLAZIER, of Newcastle, Ind., has received contract for the brick work of the three subpower stations of the Indianapolis, Newcastle & Toledo traction line, and with a force of men has begun work on the one here. The combination power plants and stations will be built at Shirley, Maxwell and at a point four miles from Indianapolis. That at Shirley will be the largest and it is expected to have the walls up and the building inclosed by the end of 30 days. It will provide a place for a substation, a waiting room and ticket office, besides accommodations for freight service. It will be two stories high.

COUNCIL BLUFFS, IOWA.—Bids were received as follows on Nov. 26 by James Knox Taylor, Supervising Arch., Treasury Dept., Washington, for (a) lighting and conduit, (b) plumbing and gas piping, and (c) heating apparatus, for the post-office at Council Bluffs: Frank H. Wells, Havelock, Neb., (a) $3,337; F. E. Baker Co., Oskaloosa, Iowa, (a) $3,565; General Construction Co., Milwaukee, Wis., (a) $4,529, (b) $14,083, (c) $12,040; Herman Andrae Electric Co., Milwaukee, (a) $4,375; McMartin Electric Construction Co., Columbus, (a) $3,841; R. F. Fletcher, Columbus, (a) $5,680; Unit Electrical Co., St. Paul, (a) $3,950; Sanborn-Monte Electrical Co., Indianapolis, (a) $4,450; Johnston Electrical Co., Omaha, Neb., (a) $6,300; E. H. Balt & Co., Cedar Rapids, Iowa, (a) $5,305; Hurley & Co., St. Paul, Minn., (b) $12,463, (c) $11,524; Fitz Patrick & Hooffner, Columbus, (b) $10,385, (c) $10,594; R. R. Haas Electrical & Mfg. Co., Springfield, Ill., (b) $15,092, (c) $12,490; George Delton, Inc., New York, (b) $13,792; Iowa Mfg. Co., Oskaloosa, (b) $13,200, (c) $7,980; Connell Plumbing & Heating Co., Kansas City, Mo., (b) $12,972, (c) $13,985; New York Plumbing Co., Council Bluffs, (b) $11,867; G. A. Kees Domestic Engineering Co., St. Paul, Minn., (c) $10,250.

BRECKENRIDGE, MINN.—The Wahpeton & Breckenridge St. Ry. Co. is considering the construction of a power plant. A gas engine and gas producer plant may be included in the equipment.

WICHITA, KAN.—A new power station for the Edison Light & Power Co. is to be built in this city within the next year. Consulting engineers in Chicago have been employed to prepare plans for the new power house, and as soon as these are ready, the work of enlargement will begin. The plant when completed will have the most modern equipment and will have a capacity of about 7,000 HP.

ERIE, KAN.—See item under Water Supply—Irrigation.

ST. LOUIS, MO.—The Foresight Investment Co. is contemplating the construction of an electric light plant and cold storage plant near Forsythe Boulevard and Cornet Ave. George Lewis is Secy., 608 Liggett Bldg., St. Louis.

LITTLE ROCK, ARK.—The Arkansas Natural Gas Co., chartered under the laws of Delaware, with a capital stock of $5,000,000, has filed a certificate of incorporation under the laws of Arkansas for the purpose of doing business in this State. The company has $50,000 invested in the State and it is the intention of the management to proceed with the development of both oil and gas holdings in Arkansas.

MOUNT PLEASANT, TEX.—The City Council has granted M. Greenspun, of Mount Pleasant, a franchise to erect another electric light plant here. An ice plant will also be built in connection with the electric plant.

MARATHON, TEX.—Plans are being considered for the installation of an electric light plant and ice factory in connection with the rubber works in Marathon.

EVANS, COLO.—Preparations are being made by the Home Light & Power Co., Greeley, to supply electricity here. Electrical energy for operating the system is purchased from the Northern Colorado Power Co. The Home Company is extending a 6,600-volt feeder line four miles to supply the Evans service. The right of way to be secured for these lines is intended ultimately to be utilized for the 4,000-volt line of the Northern Colorado Power Co. in completing a loop from Greeley through La Salle, Fort Lupton, Platteville and Brighton and back to the generating station at Lafayette. Robert McF. Doble, Majestic Bldg., Denver, is Secy. and Mgr.

BURBANK, WASH.—Contracts have been awarded by the Burbank Power & Water Co. for the construction of a new pipe line and distributing canal at Five Mile Rapids on the Snake River. Contract for the distributing canal was awarded to OTTO HANSON, of Kennewick, Wash., at $30,000. Estimated cost of entire work, $50,000. James D. Hodge, of Seattle, Wash., is Pres.

WALLA WALLA, WASH.—The Northwestern Gas & Electric Co., A. Welsh, Mgr., Portland, Ore., has applied to the City Council for an extension of its franchise here covering its electric light and power service, street railway system and gas service. The extension is asked to make the present franchise correspond with the $5,000.000 bond issue, which is to run for 25 years.

VISALIA, CAL.—The Mount Whitney Power & Electric Co. has been incorporated with a capital of $5,000,000 by John C. Hays, Thomas J. Broidrick and Harry T. Hays, of Visalia, and Allen C. Chickering, of Oakland.

SOUTH PASADENA, CAL.—Plans have been completed for the lighting system which the residents of Fletcher, Electric and Bushnell Aves. are to install at a cost of from $1,200 to $1,500. The plans include the installation of 20 ornamental poles on each of three avenues on which will be placed two lamps.

RED BLUFF, CAL.—The Board of Supervisors has awarded franchise to the Sacramento Valley Power Co. to erect transmission lines in Tehama County.

PORTERVILLE, CAL.—S. E. Henley, of Porterville, will construct a power plant, to cost about $150,000, from the plans of Holley & Holley, of Visalia, to be located about one mile below Springville.

ALTURAS, CAL.—Plans have been prepared by I. W. Gibbins, of Alturas, for filing water rights for a hydroelectric power plant on Silver Creek, in the Warner Mountains. The plant will be capable of developing 4,000 HP.

LONG BEACH, CAL.—The City Engineer is preparing plans for a power plant for the purpose of furnishing sufficient power for a high-pressure fire system. It is probable that in addition to the main pumping plant, a smaller station will be erected.

BENSON, ARIZ.—The Benson Lighting Co., of Benson, will erect an electric lighting plant. Power will also be generated. Plans are in preparation.

WALLACE, IDAHO.—Edward Donlon, of Missoula, Mont., has decided to construct a power plant at Thompson Falls, to deliver electric power to Wallace. Estimated cost, $1,000,000.

TORONTO, ONT.—The Hydro-Electric Commission has awarded contract to the AMERICAN ALUMINUM CO. OF AMERICA, Pittsburg, Pa., for 1,500,000 lbs. of ½-in. aluminum wire to be used in connection with the distribution of electricity generated at Niagara Falls throughout Ontario, at about $400,000.

TORONTO, ONT.—We are officially advised that bids will soon be asked by the city for 16 tons c.-i. manhole covers, sludge valves, penstocks, 150 tons of c.-i. pipe, 26 tons special castings, four 24-in., two 18-in., two 8-in. centrifugal pumps, two 175-HP. two 125-HP., two 10-HP. motors and two 200-HP. gas engines, garbage destructor, sewage screens and centrifugal dryers. C. H. Rust is City Engr.

SWAMP RIVER, MAN.—The ratepayers have voted the by-law to issue $15,000 of bonds, to be used to purchase a lighting plant, fire engine, etc.

NELSON, B. C.—The Bulls River Falls Power & Light Co., at present constructing a large power plant in the Fort Steel district, proposes to furnish electricity for lamps and motors to all towns in the Pass country from Michael and eastward to Moyie.

MEXICO.—An American consul in Mexico reports that a company, composed largely of American citizens, capitalized at $500,000, has secured a concession from the local government for developing a very valuable water power in his district. The especial business of the company will be the owning, operating, and conducting of electric-power business, and the use of franchises, concessions, and contracts connected therewith. The work to be done consists of dam building and the establishment of the necessary machinery needed in an electrical plant, together with lines for the transmission of power. Everything that is to be used in an undertaking of this kind will be purchased, and manufacturers of the United States in the field for Mexican trade in the lines indicated would do well to investigate. Full information as to the needs of the company can be obtained from the president or the secretary, whose names are on file in the Bureau of Manufactures, Dept. Commerce and Labor, Washington, D. C., referring to File No. 4114.

BRIDGES.

(** denotes that this work is advertised in Engineering News.*)

PHILLIPSDALE, R. I.—The New York, New Haven & Hartford R. R. Co., Edward Gagel, Ch. Engr., New Haven, Conn., contemplates the construction of a steel double-track bridge over Ten Mile River at Phillipsdale.

*PAWTUCKET, R. I.—Bids have been received by F. B. Lawton, Secy., N. Main St. Bridge Comn., Industrial Trust Bldg., for constructing the N. Main St. bridge between the cities of Pawtucket and Central Falls. Appropriation, $5,000. The bids were: FREDERICK E. SHAW, Providence, $41,500 (awarded contract); John Cashman & Sons Co., Quincy, Mass., $36,000; Sperry Engineering Co., New Haven, Conn., $24,000; McKinnon Construction Co., Providence, $22,400. Jas. A. Carpenter, City Engr.

*NEW HAVEN, CONN.—Bids for the construction of the Edgewood Ave. bridge were opened on Nov. 22 by C. W. Kelly, City Engr. Contract for the construction of the bridge was awarded to ROBERT D. DALEY at $43,315. Contract for grading to FRANK BRAZOS, New Haven. Complete bids were: Grading: A. N. Farnham, $23,225; Robert D. Daley, $19,040; C. W. Blakeslee & Sons, $16,870; Thomas F. Maher, $15,900; Frank Brazos, New Haven, $15,195. Construction work: Aberthaw Construction Co., $61,419; David H. Clark Co., $56,471; C. A. Sibley, $56,115; Thomas F. Maher, $51,748; Ryan-Unmack Co., $16,369; C. W. Blakeslee & Sons, $47,907; Schweier & Sutton, $44,741. Robert D. Daley, New Haven, $43,315.

NEW YORK, N. Y.—Bids are asked until 2 p. m., Dec. 14, by J. W. Stevenson, Bridge Comr., for the construction of a steel and timber trestle at the Kent Ave. Bridge, over Bushwick Creek, Boro. Brooklyn.

NIAGARA FALLS, N. Y.—The Finance Committee, it is stated, has decided to appropriate $5,000 for repairs to the Terry Ave. bridge.

BUFFALO, N. Y.—Bids are asked by F. C. Stevens, Supt. Pub. Wks., Albany, until noon, Dec. 15, for the work of constructing a highway bridge over the Erie Canal at Georgia St. The work must be completed by July 1, 1910. Engineer's estimate of cost, $17,260.

TONAWANDA, N. Y.—The New York Central R. R. Co. has authorized an appropriation of $94,000 for a steel lift bridge to be erected over the Erie Canal here.

CALEDONIA, N. Y.—The towns of Caledonia and Avon on Nov. 16 voted in favor of constructing a bridge over the Genesee River. The plans contemplate a 15-ton bridge with cement floor. Estimated cost, about $12,000.

SCRANTON, PA.—C. V. Terwilliger, Dir. Pub. Wks., states that plans for the construction of the Mulberry St. viaduct are being prepared.

EASTON, MD.—FISHER & COROZZA, 614 American Bldg., Baltimore, Md., have been awarded contract at $31,238 for constructing a bridge and draw over Choptank River at Dover Bridge, which connects Talbot and Caroline Counties.

MEMPHIS, TENN.—The Board of Public Works has passed an ordinance which provides for the construction of a bridge by the Southern Railway Co., W. H. Wells, Ch. Engr. of Construction, Washington, D. C., over the tracks at Madison Ave.

LOCKLAND (Cincinnati post-office), OHIO.—Bids will be received until noon Dec. 17 by the Board County Commissioners, Cincinnati, Fred Dreihs, Clk., for a concrete bridge over Mill Creek at Benson St., between Lockland and Reading, Sycamore Township.

MARIETTA, OHIO.—Bids will be received by Hammond Burton, County Audr., until Dec. 6, for the construction of a bridge over Coal Run, on Coler Road, in Wesley Township.

RENSSELAER, IND.—Bids are asked until noon, Dec. 6, by the Board of County Commissioners for the construction of a steel bridge in Walker Township across Grover Smith ditch between Sections 13 and 14. The structure will be 55 ft. long and 16 ft. wide. James N. Leatherman is Audr. Jasper County.

THREE RIVERS, MICH.—The citizens on Nov. 15 voted to issue bonds for the construction of a bridge at Wood St. over the St. Joe River, and another at Mill St. over Emery Tail Race. The work will be done by day labor in the spring. The Superintendent of Water-Works will be in charge of the work.

MARQUETTE, MICH.—Bids have been opened as follows by the Dickinson and Marquette Boards of Road Commissioners for the construction of the proposed bridge over the Michigamme River: Worden-Allen Co., $5,068, Joliet Bridge & Iron Co., Joliet, Ill., $4,185; Lake Shore Engine Works, $4,800; Wisconsin Bridge & Iron Co., North Milwaukee, Wis., $4,025; Illinois Bridge Co., 115 Adams St., Chicago, Ill., $3,546. The first four bids are for a steel bridge with concrete floors and the last one for an all concrete structure. The concrete bridge would contain two spans of 45-ft. each and the steel bridge one span.

DECATUR, ILL.—The SMITH CONSTRUCTION CO., Pekin, Ill., has been awarded contract, at $4,000, for the construction of a new steel bridge over the south fork of Salt Creek in DeWitt Township. The bridge will be 160 ft. long, with two spans of 80 ft. each, with abutments of concrete.

ST. PAUL, MINN.—The Commissioner of Public Works submitted to the City Council Nov. 18 plans for approaches to a bridge recommended to do away with the grade crossings at a point where Earl St. crosses the Chicago, St. Paul, Minneapolis & Omaha and Northern Pacific Ry. tracks, adjoining Seventh St. Estimated cost of approaches, $34,000.

PLATTSMOUTH, NEB.—Bids are asked until 3 p. m., Dec. 6, by the County Commissioners for the construction of wood and steel bridges for Cass County for the year of 1910. W. E. Rosencrans is County Clk.

LA MOURE, N. DAK.—The HEWETT BRIDGE CO., 834 Lumber Exchange, Minneapolis, Minn., has been awarded contract, at $9,430, for the construction of eight bridges. The work includes one 80-ft. steel span 16-ft. approach, one 60-ft. steel span, four 30-ft. steel spans, two 24-ft. wooden bridges. Bids were opened on Nov. 17.

KANSAS CITY, MO.—J. L. Darnell, City Engr., is preparing plans for the construction of a viaduct to be erected at W. Twelfth St.

BAILEYVILLE, TEX.—Milam and Robertson Counties contemplate the construction of a bridge across the Brazos River.

SANTA FE, N. MEX.—The Board of County Commissioners of Bernalillo County has awarded to the MISSOURI VALLEY BRIDGE & IRON CO., Leavenworth, Kan., contract for the construction of two steel bridges over the Rio Grande, at Barelas and near Alameda, at $81,873.

SPOKANE, WASH.—The Board of Public Works has approved and recommended the adoption of the plans submitted by the Oregon Ry. & Navigation Co., G. W. Boschke, Ch. Engr., Portland, Ore., for steel viaducts to cross Olive Ave. and Napa St. at the junction of those two thoroughfares. It is proposed to cross the avenue diagonally with a structure 200 ft. long.

COLFAX, WASH.—Bids will be received by the County Commissioners until Dec. 20 for the construction of two 130-ft. riveted-steel truss bridges. John M. McCaw is County Engr.

NORTH YAKIMA, WASH.—The PUGET SOUND BRIDGE & DREDGING CO., 95 Yesler Way, Seattle, Wash., have the contract for building the new North Coast bridge across the Columbia east of town below the Snake River. Cost, $75,000.

PORTLAND, ORE.—Plans for the proposed new Oregon Ry. & Navigation Co. bridge across the Williamette River to replace the old steel bridge are nearing completion and within the next 30 days bids will probably be asked for the substructure. Waddell & Harrington are Engrs.

LOS ANGELES, CAL.—The Board of Public Works is having plans and specifications prepared for ornamentation of the Main St. bridge. The plans include a concrete coping and railing, and eight ornamental light standards. Estimated cost, $5,300.

FLORENCE, ARIZ.—Bids are asked until 2 p. m., Dec. 8, by the Board of Control of the Territory of Arizona, Phoenix, for the construction of a highway bridge over the Gila River, near Florence, Pinal County. The proposed structure will be of concrete and 700 ft. in length.

SHERBROOKE, QUE.—Bids were opened on Oct. 30 for the construction of a steel bridge across Magog River here. Contract has been awarded to the MACKENNON-HOLMES STEEL CO., of Sherbrooke, at $21,700. F. J. Griffith is City Secy.-Treas.

*QUEBEC, QUE.—Contractors for bridge superstructure are invited to visit the office of the Board of Engineers, Canadian Express Bldg., Montreal, after Jan. 3, where information may be had to enable them to prepare bids for the superstructure of a 1,758-ft. span bridge 88 ft. in width (Quebec bridge). Bids will be received on the specification and for the design shown on the plans as prepared by the Board. The contractor is invited to submit alternative designs, which must conform to the conditions laid down in the general specification. L. K. Jones is Secy. Dept. Railways and Canals, Ottawa, Ont.

CAMERON, MAN.—Bids are asked until 5 p. m., Dec. 6, by T. B. Woodhull, City Secy. and Treas., for the construction of a pile bridge across the Souris River on Section 25-525, near Lauder.

BUILDINGS.

(** denotes that this work is advertised in Engineering News.*)

SPRINGFIELD, MASS. — Sullivan Bros., who own the Colonial Theater in Pittsfield, Mass., and the Empire Theater in North Adams, Mass., have announced that the property which was sold by E. H. Bridgeman to W. J. Eaton, of Albany, N. Y., had been bought for them. A theater will be erected on the rear of the lot and a business block on the present site of the wooden building. The business block is to be of brick. The work of removing the present wooden building will be started as soon as the Y. M. C. A. moves to its building on the corner of North and Melville Sts., which will be about July 1. There will be an entrance to the theater in the rear through an arcade in the business block. The block will be four stories and the upper floors will be fitted for offices. The plans for the buildings have not been drawn. The cost of the buildings probably will be in the neighborhood of $125,000.

SPRINGFIELD, MASS.—Bids are asked by the Municipal Building Commission in the Common Council Room, Municipal Building, Pynchon St., Springfield, until 3 p. m., for Contract No. 2, being the excavation, mason work, cutstone, structural steel, fireproofing, roofing, ornamental iron, plastering, mosaic and tile floors, interior stone and marble, carpentry and finishing, vaults and elevators for the auditorium, tower and passage, municipal office building and terrace and steps of the municipal buildings to be erected by the city of Springfield in Court St. facing Court Sq. Drawings and specifications may be seen at the Municipal Building, Springfield, or at the offices of Pell & Corbett, Archs., 122 East 25th St., New York. George D. Pratt is Chn. Bldg. Com.

BOSTON, MASS.—The Boston "Globe" states that an 11-story department store is to be erected on the block bounded by Washington, Franklin, Hawley and Summer Sts. It is stated that Lee, Higginson & Co., real estate brokers, 50 State St., Boston, are interested.

NEW LONDON, CONN.—Bids were received as follows on Nov. 30 by James Knox Taylor, Supervis. Arch. of the Treasury Dept., Washington, D. C., for the construction of an extension to the New London post-office: Conroy Bros., Inc., 217 West 125th St., New York, $37,190; William H. Fissell & Co., St. James Bldg., New York, $33,970; Bliss & Griffiths, New York, $45,828; Harmon Bros., Williamsport, Pa., $43,000; Westchester Engineering Co., 39 East 42d St., New York, $45,433; M. P. Wells, Philadelphia, $45,719; Joseph A. Dolan, New London, $41,000; Wills & Marvin Co., 1170 Broadway, New York, $37,773; Hamilton R. Douglas, New London, $44,997; Engineering Construction Co., Baltimore, $45,721.

SCHENECTADY, N. Y.—A. E. Brown & Co., of Schenectady, are planning to construct a building on State St., to be used as a furniture store. The structure will be seven stories in height and will be of reinforced concrete construction. Plans and specifications are being prepared.

NEW YORK, N. Y.—Bids are asked by John J. Barry, Comr. Dept. of Correction, until 11 a. m., Dec. 9, for erection and entire completion of the store and stable buildings, walls and sidewalks in connection with the women's prison of Raymond St. Jail, situate on the southeast corner of Raymand and Willoughby Sts., Boro. of Brooklyn, New York.

Plans of the Bradford Street Hospital to be erected on Dumont St, between Miller and Bradford Sts., East New York, have been filed in the Bureau of Buildings by Helmle & Huberty, Archs., 190 Montague St., Brooklyn. The structure will have a capacity of 100 beds and will cost $250,000. The building will occupy a plot of 200 × 200 ft. It will be five stories in height with an extension of two stories. The hospital kitchen will be at the main roof level. The building will be constructed with a granite base and red brick with terra cotta trimmings above. The main entrance is featured by imposing columns. The general style of design is the early Italian Renaissance. It will be fireproof. The matter is under the direction of Robert W. Hebberd, Comr. of Public Charities, New York.

St. Anthony's Roman Catholic Church, of Greenpoint, is to build a young men's clubhouse. Monsignor P. F. O'Hare, Pastor of the church, has filed plans for the building. It will be a 2-story brick structure, and will be erected on Leonard St., near Calyer St., at a cost of $40,000. The plans show that the main floor will be given over to a large meeting room, a committee room and a billiard room. In the basement there is to be gymnasium, bowling alleys and a suspended running track. The auditorium is to be on the second floor.

Plans have been filed for a $650,000 warehouse, to occupy the block bounded by Jay. John, Jewel and Plymouth Sts., Brooklyn. It will be built for Arbuckle Bros., foot of Jay St., Brooklyn.

NEW YORK, N. Y.—Plans have been filed for two 5-story flat houses, each to contain accommodations for 21 families, to be built from designs by Neville & Bagge, Archs., 217 West 125th St., at the northwest corner of Pinehurst Ave. and 178th St., for the Degenhardt Construction Co., to cost $55,000 and $65,000, respectively.

August Belmont has sold through Pease & Elliman, 156 Broadway, and George Backer, to the Century Holding Co. (Lee & Fleischmann), 141 Broadway, the northeast corner of Fifth Ave. and 81st St., and a 12-story apartment house will be built upon the plot, which is 102 × 125 ft. Estimated cost $2,000,000.

Clinton & Russell, Archs., 32 Nassau St., have filed plans for remodelling the old buildings at 137, 139, 141, 143, 147 and 149 West 32d St., for Thomas Diamond. Three of the buildings are to be used as dwellings, two as lofts and stores, and one as a stable, with meeting rooms. They immediately adjoin the new Gimbel building on the west; the remainder of the block being the property of the Pennsylvania R. R. Co.

J. G. Rogers, Arch., 11 East 24th St., has filed plans for a 4-story and attic dwelling, to be built at the northwest corner of Park Ave. and 64th St., for Jonathan Bulkley, of Brooklyn. It is to be of limestone, in the style of Louis XVI period, ornately decorated, having a central entrance, and ornamental balconies at casement windows, and will be crowned with a mansard and balustrade. It is to have a frontage of 74 ft. and a depth of 32 ft., and will cost $40,000.

NEW YORK, N. Y.—Bids are asked until 3 p. m., Dec. 13, by C. B. J. Snyder, Supt. School Bldg., Dept. of Education, for driving well at Public School No. 120, Barren Island, Boro. of Brooklyn; for iron railings and gates, also for relaying pavement, etc., at Public School No. 35, 163d St., Grant and Morris Aves., Boro. of the Bronx; for installing gas fixtures, together with burners, mantles, chimneys, globes, shades, reflectors and by-passes, complete, upon a "purchase and maintenance" basis or a "rental" basis, in the halls, corridors, classrooms and exit stairs mentioned in the specifications at Public Schools Nos. 8, 16, 17, 43, 49, 70, 71, 77, 79 and 83, Boro. of Manhattan; for alterations, repairs, etc., to Public School No. 79, Seventh Ave. and 14th St., Whitestone, Boro. of Queens; for filing cabinets for various schools in the Boroughs of Manhattan, the Bronx and Richmond.

Bids were received on Nov. 29 by C. B. J. Snyder, Supt. School Bldgs., Dept. of Education, for general construction, etc., of Public School No. 75, on the southerly side of Covert Ave., between Center and George Sts., Ridgewood Park, Boro. Queens: Botsford-Dickinson Co., 1170 Broadway, New York, $282,642; J. F. Walsh, $282,980; J. H. Parker & Co., 158 Greenwich, New York, $324,873; John Auer & Sons, $287,221; Charles H. Peckworth, 415 Hudson St., New York, $299,237; T. A. Clark & Co., $287,000; M. J. Moron, Inc., $292,385; Patrick Sullivan, 230 Grand St., New York, $327,400; Richard E. Henningham, 1 Madison Ave., New York, $397,669; Thomas McKeown, Inc., $312,939; Peter Cleary, $299,316; George Hilderbrand, 38 Park Row, New York, $308,400; P. J. Brennan & Co., Flatiron Bldg., New York, $310,000; James McArthur, $314,000; George Vassar's Sons Co., 1170 Broadway, New York, $295,000; John Kennedy & Co., 1123 Broadway, New York, $299,975; George F. Driscoll, $286,700; Wills & Marvin Co., 1170 Broadway, New York, $292,929.

NEW YORK, N. Y.—Revised plans for the proposed $7,500,000 municipal office building, which is to be built north of the Park Row terminal of the Brooklyn Bridge, were approved on Nov. 29 by the Board of Estimate. James W. Stevenson, Bridge Comr., will advertise for bids at once, and the contract will be awarded before Mayor McClellan retires from office. Plans for the structure were prepared by McKim, Mead & White, Archs., 160 Fifth Ave., and the building is designed to house practically all of the city departments with the exception of the Police and Health. The new building will rise to a height of 550 ft. It will have 25 stories, 21 of which will be used for office building purposes, and the total floor area will be 651,000 sq. ft. The structure is to be bounded by Centre St., Tryon Row, Park Row and Duane St. Chambers St. will be carried under the building by means of an arcade, and there is to be a big open court in the center. The basement is to be used by the subway tracks, the mezzanine floor as an exit for passengers and the first, or street floor, will be devoted to subway entrances. The building is to be of white granite, backed up by brick work.

CENTRAL ISLIP, N. Y.—Bids are asked by the State Commission in Lunacy until 3 p. m., Dec. 22, for the construction of six cottages for chronic patients, including heat-

ing, plumbing and electric work, at the Central Islip State Hospital, at Central Islip, N. Y. The work will cost about $300,000. T. E. McGarr is Secy. of Comn.; F. B. Ware is State Arch., The Capitol, Albany.

PORT WASHINGTON (L. I.), N. Y.—Howard Gould has decided to demolish the house which he is using as a residence in Port Washington, L. I., and has had plans prepared by Hunt & Hunt, Archs., 28 East 21st St., for a larger building in its place. It will be a 3-story and basement structure, with a frontage of 228 ft. and a depth of 110 ft., and will have garages, stables and outbuildings in connection with it, the whole establishment involving an expenditure of about $1,000,000. It will be in the style of an English manor house.

ALBANY, N. Y.—We are officially advised that the HUDSON VALLEY CONSTRUCTION CO., 30 Fourth St., Troy, N. Y., has been awarded the contract for the complete construction of a Packard automobile garage at the corner of Washington Ave. and the Northern Boulevard, Albany, for J. A. P. Ketchum, of Saratoga Springs. The building will be 66 × 140 ft., fireproof, two stories in height and constructed with reinforced concrete frame, concrete floors and pressed brick exterior, with stone and terra-cotta trimmings. The plans and specifications were drawn by Albert Kahn, Arch., 58 Lafayette Boulevard, Detroit, Mich., and Ernest Wilby, associate. The work of construction will be started immediately, and it is expected that it will be ready for occupancy in the early spring.

BUFFALO, N. Y.—William S. Brickell, Arch., 395 Ellicott Sq., has prepared plans for a 3-story and basement apartment house, 50 × 90 ft., of stone, brick and structural iron, to be erected at the corner of Delaware Ave. and West Ferry St., by Washington B. French, 23 Bidwell Parkway. Estimated cost, $70,000.

RIVERHEAD (L. I.), N. Y.—The State Prison Commission has approved plans of William J. Beardsley, Arch., 49 Market St., Poughkeepsie, N. Y., for a jail to be erected here. The plans for the jail anticipate 145 cells, with all the modern improvements for sanitation, light and the control of prisoners. The building will be 168 × 48 ft., three stories high, and will have separate lighting, water and sewage disposal plants. There will be a 12-ft. concrete wall around the jail. It is expected that the general contract will be let this fall. Cost, about $150,000. Noted on Nov. 25.

ROCHESTER, N. Y.—Gordon & Madden, Sibley Bldg., have completed plans and will receive bids for a theatre, store and office building, 60 × 200 ft., three stories and basement, of brick and steel construction for George E. Simpson, 293 Main St.

The New York Central & Hudson River R. R. Co. has completed preliminary plans for a passenger station to be erected at Joiner St. at an estimated cost of $1,500,000. George W. Kittridge is Ch. Engr., Grand Central Station, New York. Claude F. Bragdon, Cutler Bldg., Rochester, associated with New York architects.

TRENTON, N. J.—Bids are asked by James Knox Taylor, Superv. Arch., Treasury Dept., Washington, D. C., until 3 p. m., Jan. 6, for the construction of an additional story, remodeling, etc. (including gas piping and electric conduits and wiring), to the U. S. post-office and court-house, at Trenton.

EAST ORANGE, N. J.—An apartment house is to be erected in Prospect St., East Orange, plans being filed for a $65,000 structure. Fairchild & Baldwin will erect the building on property formerly owned by the Edward Reid estate.

PHILADELPHIA, PA.—Bids are asked until 2.30 p. m., Dec. 7, by the Committee on Property at the office of the Board of Education, for constructing a wing to the Pastorius school house, Woodlawn and Sprague Sts., 22d Section; boiler repairs; new flagpoles, repairs to flagpoles, metal ceilings, wire screens and for hire of automobiles during the year 1910. William Dick is Secy.

T. Reece Howard has been granted a permit for a $40,000 moving picture theater, to be erected at 111-113 South 52d St. The plans provide for a lobby entrance, 28 × 65 ft., leading into the auditorium proper, which will face on Sansom St., covering an area of 125 × 98 ft. The seating capacity will be 1,200. Plans have been prepared by E. Allen Wilson, Arch., Land Title Bldg.

John D. Allen, Arch., Betz Bldg., has plans for a theater to be built at the southwest corner of 52d and Ludlow Sts. The new building, which, it is stated, will cost about $100,000, will occupy a lot 151 × 100 ft. on the south side of Ludlow St., 77 ft. west of 52d St., and directly in the rear of the properties 30 and 32 South 52d St., lot 36 × 77 ft., which have been acquired to provide an entrance from 52d St. into the theater.

Plans for the erection of the branch Carnegie Free Library in Oak Lane are being prepared by Ralph E. White, Arch., Pennsylvania Bldg. The building, which will be erected at Twelfth St. and Oak Lane, will be of brick, terra cotta and limestone, and will measure 81 × 91 ft. The cost will be about $50,000.

ARDMORE, PA.—We are officially advised that bids were received on Nov. 22 for the proposed Lower Merion High School, to be built in Ardmore. The building will be of granite, two stories and basement, 219 ft. 4 ins. × 69 ft. 4 ins., with an auditorium wing in the rear, 63 ft. 4 ins. × 72 ft. The building will contain a gymnasium under the auditorium, study halls, reference library, physical, biological and chemical laboratories, manual training, commercial and classical departments, cloak rooms, lunch rooms for students, superintendents' office, and about 30 class rooms. Cost, $200,000. The general contract has been let to W. O. WEAVER & SON, Harrisburg, Pa. Wilson Potter, 3 Union Sq., New York, is Arch.

STATE COLLEGE, PA.—Albert Kelsey and Paul P. Cret, 1524 Chestnut St., Philadelphia, Pa., Associate Archs., are preparing plans for a Presbyterian Church, to be built at State College, Pa. The cost will be about $40,000.

BALTIMORE, MD.—Bids are asked until 11 a. m., Dec. 8, by the Board of Awards for alterations and general repairs to Bay View Asylum. Edward D. Preston is Inspector of Bldgs.

The PITTS BUILDING CO., of New York, has been awarded the contract by the Johns Hopkins Hospital Trustees, to build the Phipps Dispensary on the hospital grounds on North Broadway, Baltimore, at a cost of about $500,000. The plans have been completed by Grosvenor Atterbury, 20 West 33d St., New York, is Arch. The building will be a 5-story-and-basement fireproof structure. The architecture will correspond with the other buildings on the grounds. The Harriett-Lane Home for Crippled Children, which is being built, will cost about $300,000. It will be completed about the same time as the Phipps building.

Morris Silberstein will build 38 houses in the western section of the city at a cost of $115,000. Plans were made by Jacob F. Gerwig, Arch., 11 East Lexington St. Twenty-four of the houses will be located on the north and south sides of Riggs Ave., west of Bloomingdale Road, and the others will be on the east and west sides of Bloomingdale Road, near Riggs Ave. The houses will be about 16 × 51 ft. Slag will be used for the roofs and steam heating apparatus will be installed. The houses will have porch fronts.

WASHINGTON, D. C.—Bids are asked by James Knox Taylor, Superv. Arch., Treasury Dept., Washington, D. C., until 3 p. m., Dec. 21, for the alterations to the main entrance steps and platform of the east front U. S. Treasury Building, Washington.

WASHINGTON, D. C.—Bids are asked until 11 a. m., Dec. 24, by R. C. Hollyday, Ch. of Bureau of Yards and Docks, Navy Dept., Washington, for steel work, fireproof roof and dressed granite for Building No. 110, fireproof storehouse for fuses, acids and oils, at the U. S. Navy Yard, Washington, D. C. Specifications are on file at the office of Engineering News, New York.

KINGWOOD, W. VA.—We are officially advised that the Board of County Commissioners of Preston County has employed Milburn, Heister & Co., Archs., Home Life Bldg., Washington, D. C., to prepare plans and specifications for a 3-story, fireproof, brick and stone county court-house, 75 × 125 ft., to cost about $150,000. Contract will be let in the spring.

SHREVEPORT, LA.—Bids have been received for the erection of the Schumpert Memorial Sanitarium to be erected in this city by the Sisters of Charity. The bid of Garson Bros., of Shreveport, at $102,000, was the lowest and probably will be accepted.

*BRISTOL, TENN.—Bids are asked until 3 p. m., Jan. 12, by James Knox Taylor, Superv. Arch., Treasury Dept., Washington, D. C., for the extension, remodeling, etc., (including plumbing, gas piping, heating apparatus, electric conduits and wiring) of U. S. post-office and court-house at Bristol.

GREENVILLE, OHIO.—E. E. BOPE, of Columbus, Ohio, has been awarded the contract for the construction of the St. Clair Memorial building to be erected at Greenville, by the Board of Education. The building will be of stone and will contain a theater, art gallery, manual training school and public meeting rooms of all kinds. The plans were drawn by Howard & Merriam, Capitol Trust Bldg., Columbus. The bid of Mr. Bope was $85,565 for the building complete, except the equipment of the theater auditorium, which will be a duplicate of the Maxine Elliott Theater in New York.

*LIMA, OHIO.—Bids are asked until 3 p. m., Jan. 10, by James Knox Taylor, Superv. Arch., Treasury Dept., Washington, D. C., for the construction (including plumbing, gas piping, heating apparatus, electric conduits and wiring) of an extension, remodeling, etc., of the U. S. post-office at Lima.

LAPORTE, IND.—The Trustees and Directors of the Laporte Y. M. C. A. have awarded the general contract to the LARSEN DANIELSON CONSTRUCTION CO., of Laporte, for erecting the new Y. M. C. A. building in this city. The building complete will cost $75,000.

OAKLAND CITY, IND.—Bids will be received by Kolmer & Riehey for the construction of a 4-story brick and stone business block on Main St., as soon as plans, now being made, are completed.

TERRE HAUTE, IND.—The School Board has approved plans for the erection of an addition to the present high school building. Estimated cost, $175,000. Bids are now being solicited.

FORT WAYNE, IND.—William Fruechenicht, Arch., is preparing plans for the construction of a sanitariam on the Mineral Springs farm. Bids will be asked as soon as plans are completed.

INDIANAPOLIS, IND.—Arthur V. Brown, Fletcher Bank Bldg., has purchased a site on Vermont and Delaware Sts. for a business block. Bids will be in order when plans are completed.

William H. Baker has ordered plans on which he will ask for bids for the construction of a business block on North Delaware St.

CHICAGO, ILL.—It is stated that Maurice L. Rothschild will erect an annex at State St. and Jackson Boulevard. The annex will occupy a lot 46¾ × 100 ft. Like the corner building, it will be eight stories and will be patterned to conform to the present building in every detail. Holabird & Roche, Archs., Monadnock Bldg., have prepared the plans. The corner lot has a frontage of 38 ft. and is under lease for 99 years. The property fronts 20 ft. and has a depth of 100 ft.

Frank S. and Anthony Biggio, wine, liquor and cigar dealers, West Randolph and Canal Sts., have acquired vacant ground space in the vicinity of the new Chicago & Northwestern passenger station, and contemplate an expenditure of $50,000. The ground space measures 50 × 150 ft., and lies in Jefferson St., west front, 100 ft. north of West Madison St. A 4-story building will be erected.

BELLEVILLE, ILL.—James Knox Taylor, Superv. Arch. of the Treasury Dept., Washington, D. C., has awarded contract for the construction of a post-office at Belleville, Ill., to HAZELTON & WALIN, 305 Dearborn St., Chicago, Ill., at $67,350.

FORT DES MOINES, IOWA.—Bids are asked until 3 p. m., Dec. 20, by the Constructing Q. M., for the construction of a post chapel with plumbing, heating, electric wiring and fixtures at Fort Des Moines, Iowa.

ST. PAUL, MINN.—The First Church of Christ (Scientist) has received bids for the construction of a cutstone, fireproof edifice to be built at Summit and Portland Aves. and Grotte St. F. C. Norlander, Bradley and Lawson Sts., city, was low bidder. Work probably will start at once. Cost, $100,000. C. H. Johnston, Manhattan Bldg., is Arch.

The State Board of Control has awarded the contract for the general construction of the proposed 3-story pressed brick and cutstone fireproof Crippled Children's Hospital to OLAF SWENSON, 945 Clark St., city, at $55,000. C. H. Johnston, Manhattan Bldg., is Arch.

The State Board of Control, P. M. Ringdal, Chn., awarded the contract for the construction of the 3-story pressed brick and cutstone fireproof ladies' dormitory to be built at the State University to J. & W. A. ELLIOTT CO., 906 Lumber Exchange, Minneapolis. This company's bid was $85,940, including heating, plumbing and electric lighting. C. H. Johnston is Arch., Manhattan Bldg.

FORT SAM HOUSTON, TEX.—Bids are asked until 11 a. m., Dec. 22, by Tilman Campbell, Const. Q. M., for the construction, plumbing, hot air heating and electric wiring of a lodge at the National Cemetery, San Antonio, Tex.

ESTANCIA, N. MEX.—Bids are asked until Dec. 20 by E. W. Robertson, Probate Clerk, Estancia, for construction of a county court-house.

NORTH POWDER, ORE.—Plans are being prepared for a health resort to be erected at North Powder by Bennes, Hendricks & Tobey, Latobe Bldg., Portland. The building will be 60 × 180 ft., three stories high, and of brick, stone and concrete construction. Cost, $100,000.

PORTLAND, ORE.—It is stated that John B. Yeon contemplates erecting a 15-story building at the corner of Fifth and Alder Sts. Estimated cost, $500,000. Reid Bros., Claus Spreckles Bldg., San Francisco, Cal., are Archs.

SALEM, ORE.—Bids are asked until Dec. 15, by Dr. R. E. Steiner, Supt. Oregon State Insane Asylum, for erecting an asylum. Appropriation, $58,000.

SAN FRANCISCO, CAL.—Joseph Winterburn has taken out a permit to erect a 4-story frame apartment house at the northeast corner of Clay and Taylor Sts. which will cost $40,000.

The structure of the San Francisco Savings Union, to stand on the northwest corner of Grant Ave. and O'Farrell St., as estimated in a building permit which has been issued, will cost $250,000. The description in the permit calls for a 2-story granite bank structure.

VALLEJO, CAL.—Bids are asked until 11 a. m., Dec. 31, by R. C. Hollyday, Ch. of Bureau of Yards and Docks, Navy Dept., Washington, D. C., for improvements to Building 69, general storehouse, at the U. S. Navy Yard, Mare Island, Cal. Specifications are on file at the office of Engineering News, New York.

OAKLAND, CAL.—City has voted in favor of municipal improvements. Bonds for $1,150,000 will be issued for a new city hall and hall of justice. See item under Miscellaneous Contracts.

LOS ANGELES, CAL.—Approximately $142,300 will be expended in the immediate erection of a 6-story hotel building, 4-story apartment house and two 3-story apartment houses by William W. Paden, Los Angeles Trust Bldg. The hotel building will be located on the west side of Olive St., south of Pico St. It will be a brick strutcure, with pressed brick front, and will contain 128 main rooms and 46 bathrooms. It will be a Class C building. Construction will be begun in 60 days. The 4-story apartment house will be erected in Hope St., south of Third St., at a cost of $40,000. It will contain 85 rooms, which will be divided into one, two and three-room apartments. Construction will be begun at once. The construction of a 3-story apartment house to contain 48 rooms and cost $16,300 at 934 Arapahoe St., and of another 66 rooms to cost $21,000 at 2819 San Marino St., has been begun by Mr. Paden. Train & Williams, Exchange Bldg., Los Angeles, Cal., is Arch.

The AMERICAN BRIDGE CO., 30 Church St., New York, N. Y., has been awarded the contract for the Alexandria Hotel to be erected at Los Angeles Cal., requiring 1,500 tons of steel, and for the Chester building, which will also be erected at Los Angeles, requiring 3,600 tons of steel.

SAN PEDRO, CAL.—Hudson & Munsell, Archs., Stimson Bldg., Los Angeles, Cal., have prepared plans for a 3-story and basement club-house to be erected at the corner of Palos Verds and Seventh St., San Pedro, Cal., for the local lodge of Elks. It will be of mission style with brick walls, cement-plaster finish and clay tile roof. It will measure 70 × 100 ft., and will have concrete foundation walls, piers, etc., cement floor in basement and artificial stone entrance. The electric work, plumbing, gas-fitting, painting, heating, and ventilating, finish hardware, door and window screens will be let under separate contracts.

TORREON, MEXICO.—It has been decided by business men of Torreon to erect a theater in the Plaza de Armas. Plans for a building to cost $100,000 will be drawn. Carlos Gonzales and Juan I. Gardenas are interested in the project.

WATER-SUPPLY—IRRIGATION.

(*denotes that this work is advertised in Engineering News.)*

*NEW YORK, N. Y.—Bids are asked by the Board of Water Supply until 11 a. m., Dec. 16, for contract 53, for the construction of Grassy Sprain cut and cover, Platt Ave. siphon and portions of Ardsley Cut and cover, aggregating about 24,400 ft. of plain concrete conduit, known as Aqueduct in open cut and on embankment, 17½ ft. high by 18 ft. wide insided, and about 138 ft. of aqueduct of special design, built of reinforced concrete. T. Waldo Smith is Ch. Engr.

*NEW YORK, N. Y.—Bids were received by the Board of Water Supply until 11 a. m., Nov. 24, for Contract No. 10, for the construction of the headworks of the Catskill Aqueduct, including the structure for controlling, regulating and aerating the water leaving the Ashokan Reservoir, the principal of which are a lower gate-chamber, a screen chamber, an aerator, special and standard aqueducts in open cut, aggregating three-quarters of a mile in length; waste-weirs, a waste-channel, a concrete venturi meter and other appurtenances. The bids follow: Jules Brenchard, 290 Broadway, $1,641,100; George W. Rogers, 29 Broadway, $1,742,270; David Peoples, Betz Bldg., Philadelphia, Pa., $1,686,700.

Bids were received as follows on Nov. 24 by the Board of Water Supply, for Contract 60, for the construction of the Hurley dikes of the Ashokan reservoir, known as Glenford, Woodstock and West Hurley dikes: Jules Brenchard, 290 Broadway, $1,055,125; David Peoples, Philadelphia, $1,029,240; Elmore & Hamilton, Albany, N. Y., $1,074,355; P. J. Carlin Construction Co., 16 E. 23d St., $1,167,000; McArthur Bros., 11 Pine St., $971,275.

NEW YORK, N. Y.—See item under Buildings.

BROOKLYN, N. Y.—Bids were opened on Nov. 17 at the office of John H. O'Brien, Commissioner of Water Supply, Gas and Electricity, for furnishing, delivering and laying a trunk distributing main and appurtenances in Albany, Clarkson, Woodruff, Ocean, Caton, Coney Island, Church and 14th Aves., and in 50th St., Boro. Brooklyn. Bids were received for c.-i. pipe and for lock-bar type of steel pipe. The lowest bids were: C.-i. pipe, Robert Carter & Co., Prospect Pl., Brooklyn, at $267,934, including hydrants, valves, etc. Lock-bar steel pipe, M. J. Dady, 350 Fulton St., Brooklyn, at $264,597.

Bids were opened also for furnishing, delivering and laying a trunk distribution main and appurtenances in Glenmore, Pennsylvania and Bushwick Aves., and in Madison St., Boro. Brooklyn. Lowest bidders were: C.-i. pipe, J. H. Holmes, 367 Fulton St., Brooklyn, at $389,725. Lock-bar steel pipe, Harlem River Construction Co., 21 Park Row, New York, at $414,950.

ROCHESTER, N. Y.—The lowest bid opened on Nov. 17 by the State Commission in Lunacy, Albany, for rearrangement of water piping for fire service, Rochester State Hospital, was that of the R. T. Ford Co., of Rochester, at $3,700.

WHITE PLAINS, N. Y.—Contract for constructing a steel water tower, bids opened on Nov. 22, has been awarded by the city to DES MOINES BRIDGE & IRON WORKS, of Des Moines, Iowa, at $8,300. J. E. Heeney is Supt. W.-Wks.

BLACK RIVER, N. Y.—We are officially advised that the Board of Water Commissioners has been authorized to construct new water-works and will need supplies to be delivered during the summer of 1910. The principal material that will be needed is as follows: 9,000 ft., 4-in., 6,000 ft. 6-in., 5,000 ft. 10-in. c.-i. pipe; 28 hydrants; nine gates and gate boxes; 400-gallon pump; 25-HP. gasolene motor; standpipe, 175,000 gallons; covering for 200 ft. of 6-in. pipe under bridge.

HIGH BRIDGE, N. J.—The village is completing plans for the construction of a water system. Estimated cost, $30,000. Six acres of land has been purchased, which will be used as intake for the new reservoir.

RIDGWAY, PA.—The Buffalo, Rochester & Pittsburg Ry. Co., E. F. Robinson, Ch. Engr., Rochester, N. Y., has decided to build a reservoir, it is stated, to supply their water tanks at Clarion Junction. The dam will be 500 ft. long and 50 ft. high, and will back water for almost a half mile.

MOUNT WASHINGTON, MD.—The Mount Washington Water-Works Co. will issue $25,000 of bonds for improving and extending the water-works system.

ROCK HILL, S. C.—The Secretary of State on Nov. 17 issued a charter to the Rock Hill Water & Electric Co., with a capital of $100,000, to operate water-works and an electric light and power plant. A. P. Maloney, Pres.; J. S. Mitchell is Secy.

LEXINGTON, S. C.—The city has defeated the proposition to issue $15,000 of bonds for the construction of water-works.

NATCHEZ, MISS.—The Water-Works Committee has been authorized to spend $14,902 for repairs and extensions to the water-works plant.

VAUDEN, MISS.—The city on Nov. 16 voted $21,000 of bonds for the construction of water-works. Bids for construction will be received until Dec. 8. Xavier A. Kramer, Magnolia, Miss., prepared plans and specifications. C. L. Armstrong is City Clk.

ALEXANDRIA, LA.—See item under Light and Power Plants.

CHATTANOOGA, TENN.—The City Water Co. will make improvements to the water-works system, including the laying of dupli-

cate main and construction of reservoir capable of containing sufficient amount to supply city for several days. Estimated cost, $100,000.

JOHNSON CITY, TENN.—Preparations are now being made to install water plant for Johnson City. Estimated cost, $300,000.

MURRAY, KY.—The city will issue $23,000 of bonds for the construction of water-works and electric light systems. J. T. Parker is City Clk.

GEORGETOWN, KY.—The citizens have voted $20,000 of bonds for the construction of a filtration plant.

COLUMBUS, OHIO.—Bids were opened by the Board of Public Service on Nov. 20 for 200 tons of c.-i. pipes for the Water-Works Department, the pipes to be 6, 8 and 12-in. Bids for five tons of special castings were also opened. James B. Clow & Sons, 330 Franklin St., Chicago, bid $27.25 a ton for the regular sizes and 2⅞ cts. a lb. for the special castings. The U. S. Cast Iron Pipe & Foundry Co., of Columbus, bid $25.90 per ton for the regular sizes and 2⅞ cts. per lb. for the special castings.

*DETROIT, MICH.—Bids are asked until noon, Dec. 28, by the Board of Water Commissioners for furnishing and erecting structural steel and iron work for engine room building of the new pumping station. Smith, Hinchman & Grylls, Detroit, are Archs. Benj. F. Guiney, Secy. Bd.

*GRAND RAPIDS, MICH.—The Board of Public Works on Nov. 17 opened bids for the boilers to be installed at the new municipal pumping and lighting station. The bids were: Oil City Boiler Works, Oil City, Pa., 350-HP. water-tube boilers, $7,775, or two 375-HP. boilers, $8,175; S. Freeman & Sons Mfg. Co., Racine, Wis., two bids, one to install two boilers at $7,274 and the other to install two 360-HP. boilers at $9,060; McNaul Boiler Co., of Toledo, Ohio, $7,350 for two 370-HP. boilers; the Marine Boiler Works, of Toledo, $8,490, guarantee to complete in 66 days after commencing work; Wicks Boiler Co., Detroit, two 345-HP. boilers, $7,523; two 350-HP., $9,568; two 350-HP. 200 lbs. pressure, $10,952. Wicks Boiler Co. also submitted bid of $6,652. Edgemore Iron Co., Edgemore, Del., two 350-HP., $9,875; Murray Iron Works, Burlington, Iowa, two 350-HP., $9,777; Central Boiler Works, Grand Rapids, two 350-HP., $9,250.

CHICAGO, ILL.—The following contracts have been awarded to MALACHY MURPHY by the Board of Local Improvements for laying water pipe: In Ewing Ave., from 108th St. to a point 234 ft. south of 107th St.; Haddon Ave., from North Leavitt St. to North Western Ave.; South Hoyne Ave., from West 103d St. to West 101st St.; North Maplewoood Ave., from West Irving Park Boulevard to West Berteau Ave.; North Springfield Ave., from a point 300 ft. north of the north line of West George St. to a point 350 ft. south of the south line of Dickens Ave.; Winona Ave., from Sheridan Road to a point 566 ft. east of the east line of Sheridan Road; West Wrightwood Ave., from North 70th Ave. to North Campbell Ave. John J. Hanberg is Comr.

MINNEAPOLIS, MINN.—Bids will be received until Dec. 10 by Henry N. Knott, City Clk., for furnishing and installing at the northeast pumping station two boilers.

Bids are also asked until Dec. 17 for 1,800 tons of c.-i. water pipe and 125 tons of special castings. Andrew Rinker is City Engr.

We are officially advised that Rudolph Hering, 170 Broadway, New York, has been retained as expert to report on some system for pure water supply for the city. He expects to make a report about the first of next year.

GILBERT, MINN.—Contract for installing the water-works system has been let to the H. L. BARRETT CO., of Virginia, Minn. Ninety days is the time given to complete the work.

ERIE, KAN.—Bids will be received about Dec. 15 for the construction of water-works and an electric light plant from the plans of Burns & McDonnell, Scarritt Bldg., Kansas City, Mo. Estimated cost, $50,000.

YANKTON, S. DAK.—Bids are asked by the State Board of Charities and Corrections, State Hospital, Yankton, for sinking and construction of an 8-in. well on the grounds of said institution until noon, Dec. 9, bidders to furnish specifications as to casing and other accessories needed, well to be approximately 600 ft. deep. W. H. King is Secy.

HURON, S. DAK.—L. P. Wolf, Consulting Engr., St. Paul, Minn., has submitted estimates to the city for the installation of a complete water-works system here, including distribution pipe line, iron removal plant, water tower, reservoir, pumping plant and pump-house. Estimated cost, $94,096. C. A. Kelly is Mayor.

*CASPER, WYO.—Bids will not be readvertised for the construction of the Pathfinder Dike. The work will be done by force account, under direction of the U. S. Reclamation Service. All bids opened on Oct. 28 at the office of the U. S. Reclamation Service, 423 Commonwealth Bldg., Denver, Colo., for the building of this dike, 45 miles southwest of Casper, were rejected. The work involves about 160,000 cu. yds. earth excavation, 8,000 cu. yds. pavement, and 2,000 cu. yds. concrete masonry. Noted on Nov. 18.

GREAT FALLS, MONT.—We are officially advised that the MINNEAPOLIS STEEL & MACHINERY CO., 2854 Minnehaha Ave., Minneapolis, Minn., are furnishing the steel pipe lines and penstocks for the water power development of the Great Falls Water Power & Townsite Co. at Great Falls. There are two independent lines of pipe, each 15 ft. 6 in. diameter, 2,460 ft. long, leading from the forebay to a reservoir and from this reservoir twelve steel penstocks lead to the power-house. These penstocks are each 8-ft. diameter, 310 ft. long, made of ½-in. and ⅜-in. plates. There are 3,500 tons of plates required for the pipe lines and penstocks. This firm is also furnishing about 1,000 tons of structural steel work for the power plant.

FAYETTEVILLE, ARK.—We are officially advised that the city contemplates an extension to Clear Creek for an additional water supply. J. J. Knoch, Fayetteville, is Consulting Engr.

BARTLETT, TEX.—The city has voted $8,000 of bonds for the erection of a steel tower and tank for water-works.

BAY CITY, TEX.—The city has voted $13,000 of bonds for the extension of water mains and street improvements.

CENTER, TEX.—The city has voted a bond issue for the extension and improvement of the water-works.

DALLAS, TEX.—The following bids were opened on Nov. 10 by the Board of City Commissioners for a 15,000,000-gallon pump for the White Rock water reservoir: Bethlehem Steel Co., South Bethlehem, Pa., $81,700; Allis-Chalmers Co., Milwaukee, Wis., $82,737 on a 48-in. pump and $78,235 on a 42-in. pump; A. M. Lockett Co., $85,000; Wm. Tod Co., Youngstown, Ohio, $69,700 on a 42-in. small plunger pump, $75,000 on a 48-in. pump, and $76,500 on a 42-in. large plunger; Camden Iron Works, $82,500.

RAMONA, OKLA.—The city proposes to construct water-works to cost $18,000 and sewers to cost $7,500. C. E. Menzie is Chn. Bd. Trustees.

LITTLETON, COLO.—P. G. Kennedy, of Denver, has filed maps for the Lone Tree Reservoir, which he proposes to construct in Arapahoe County. The dam will be 50 ft. high. Water will be taken from Toll Gate Creek. Reservoir will have a capacity of 149,350,400 cu. ft. Estimated cost, about $88,000.

*PALISADE, COLO.—Bids were received on Nov. 15 by J. D. Reid, Secy. Bd. of Directors of the Mesa County Irrigation District, Palisade, for the construction of an intake canal and accessories in the Grand River in Mesa County. J. J. LUMSDEN, of Grand Junction, Colo., has been awarded contract at $151,571.

DENVER, COLO.—Maps and general plans have been filed with the State Engineer by Howell Givens, Railway Exchange Bldg., Denver, for a system of irrigation to water 15,000 acres of arid lands south and east of Denver along the High Line canal.

GREELEY, COLO.—The Lower Platte Beaver Canal Co., M. H. Gill, Pres., will build the Lower Platte, a complete system of irrigation costing $5,200, and providing irrigation for 12,000 acres in eastern Weld County and western Morgan County.

GREELEY, COLO.—C. C. Clark and A. L. Smith, owners of the Greasewood reservoir site, upon which work began Aug. 17 last, have decided to enlarge it from its proposed capacity of 958,701,000 to 2,930,175,000 cu. ft.

*CLIFTON, COLO.—The Board of Directors of the Palisades Irrigation District have awarded contract for constructing a concrete diverting dam over Grand River, bids opened on Nov. 14, to J. J. LUMSDEN, of Grand Junction, Colo., at $74,625. O. W. Jaynes is Secy.

SPOKANE, WASH.—Bids were opened on Nov. 15 by the Board of Public Works for new mains for the water extension as follows: Union Iron Works, of Spokane, $96,000; James McNeil & Bros. Co., Pittsburg, $140,000.

PORTLAND, ORE.—The Water Board has authorized D. D. Clarke, Engr., to prepare plans and specifications for a second pipe line to Bull Run River.

The CRANE CO., Chicago, Ill., has secured contract for furnishing sleeves and valves, at $5,600.

The East Jersey Pipe Co., 90 West St., submitted two bids for steel pipe for connecting mains, Reservoirs 5 and 6, on Nov. 9 instead of one as incorrectly reported last week. The bids were: $40,071 (delivery to begin in 60 days and complete Feb. 15), and $44,078 (based on completing shipment in 45 days).

HOOD RIVER, ORE.—The citizens on Nov. 12 voted to issue $90,000 of bonds for water-works. The plan is to build headworks at a spring having a daily flow of about 1,000,000 gallons, carried 5½ miles up the Hood River, elevation, 88 ft. above the highest part of city and 475 ft. above the railroad at this point. An 18 or 16-in. pipe line will be built, with standpipe, reservoir, etc., in city, entirely new distribution system, fire hydrants, etc. Surplus water may be used for power to light the city. In addition there are extensive improvements planned in the way of sewer systems, macadamizing streets, building sidewalks, etc.

SAN FRANCISCO, CAL.—The Board of Public Works on Nov. 17 awarded contract to the METROPOLIS CONSTRUCTION CO. for building ten fire cisterns, at $74,582.

Bids are asked until Dec. 8 by the Secretary Board of Public Works for the construction of the Twin Peaks Reservoir.

Bids are asked until Dec. 15 for the pumping station at Second and Townsend Sts. Marsden Manson is City Engr.

REDLANDS, CAL.—The Bear Valley Mutual Water Co., Redlands, has authorized its directors to proceed at once with the construction of a reinforced-concrete dam to be erected in Bear Valley. Plans have been completed by James D. Schuglee, Engr., Union Trust Bldg., Los Angeles, Cal. Estimated cost, $140,000.

GILA, ARIZ.—Plans for a concrete dam 2,200 ft. long and of an average height of 25 ft., to be erected in the Gila Valley, Arizona, at a cost of about $100,000, by the Gila Water Co., will be prepared by Olmstead & Gillelen, Wright & Callender Bldg., Los Angeles, Cal. The dam will impound water for the irrigation of 80,000 acres.

OGDEN, UTAH.—The Davis & Weber Counties Canal Co. has awarded contract, it is stated, for concreting the water course, a distance of 1⅛ miles, to WILLIAM DOYLE, at $50,000. Other contracts for the concrete work along the entire course of the canal will be awarded later.

COUNCIL, IDAHO.—Contract for the construction of the dam, ditches, flumes and rock work for the Lost River Land & Water Co., at Council, has been let at Boise to SLICK BROS. The cost of the work, which will be completed by May 15, will exceed $300,000. The completion of the ditches will reclaim more than 12,000 acres of fruit land. Contract calls for the damming of the Middle Fork of the Weiser River and all ditches, etc.

TORONTO, ONT.—See item under Light and Power Plants.

TORONTO, ONT.—Bids will be received until Dec. 7 by Joseph Oliver, Mayor and Chn. Bd. of Control, for annual supplies for the year ending Dec. 31, 1910, including 12-in. c.-i. pipe, 2,670 lengths, lead pipe, stop valves, special castings, hydrants, sewer pipe, sewer bricks, paving bricks, granite boulders, asphalt, granite paving blocks, crushed stone, sand, iron and steel, cement, field tile, lumber, street signs, etc.

SEWERAGE.

(* *denotes that this work is advertised in Engineering News.*)

SALEM, MASS.—On Nov. 23 the Council passed an order appropriating $35,000 for the construction of a sewerage system at the Willows. Also for the construction of a common sewer in Highland Ave., to cost $3,800.

ROCHESTER, N. Y.—The lowest bid opened on Nov. 17 by the Board of Contract and Supply for constructing the University Ave. sewer was submitted by Thomas Holahan, Albany, N. Y., at $12,544. The same contractor submitted the lowest bid for the Wolcott road sewer, at $4,064.

TROY, N. Y.—The Board of Contract and Supply has awarded contract for the construction of a sewer in Pawling Ave., from Ford Ave. to the city line, to the McDONOUGH CONSTRUCTION CO., at $12,985. The work will include about 4,945 lin. ft. of 30, 21, 12 and 8-in. sewer. Bids were opened on Nov. 9.

*ROSELLE PARK, N. J.—Bids were received on Nov. 19 by the Mayor and Borough Council for construction of extensions to sewer system here. The bids were as follows: Harison Construction Co., Newark, first section, $30,652; second section, $20,507; Jabson-Hooker Co., 1170 Broadway, New York, $31,552 and $22,149; Damato & Stafenelli, Newark, $27,217 and $18,272; B. F. Sweeten & Son, Camden, $34,704 and $22,672; MARTIN MILLER, Seneca Falls, $24,668 and $15,759 (awarded contract); Mauriello-Fusco Co., Montclair, $29,555 and $19,793; John McNabb, Bound Brook, $28,558 and $17,135; E. M. Mullen, Bayonne, on Section 2 only, $20,776. J. Wallace Higgins, Boro. Engr., Roselle Park, and 347 Fifth Ave., New York.

BALTIMORE, MD.—The city will expend $22,600 for the construction of storm-water drains. B. T. Fendall is City Engr.

PARKERSBURG, W. VA.—Bids are asked until 8 p. m., Dec. 2, by the Board of Affairs for material and labor for the construction of an 8-in. sanitary sewer in Liberty St., from 19th to 20th Sts., 375 ft., including necessary Y branches, house connections, manholes, etc. Frank Good is Audr.

BIRMINGHAM, ALA.—E. W. JORDAN, of Birmingham, has been awarded contract, at $19,760, for the construction of sanitary sewers and laying cement sidewalks in this city.

SHREVEPORT, LA.—See item under Streets and Roads.

GEORGETOWN, KY.—The city has voted $5,000 of storm-sewer bonds.

LOUISVILLE, KY.—Bids will be received by the Commissioners of Sewerage, P. L. Atherton, Chn., until Dec. 17, for the construction of the 21st St. sewer, Contract 58. J. B. F. Breed is Ch. Engr.

CINCINNATI, OHIO.—Bids will be received until Dec. 6 by the Board of Public Service, John J. Wenner, Clk., for furnishing material and constructing sewers in Hewitt Ave. and rights-of-way from Graydon Ave. to proposed Duck Creek sewer.

LAKEWOOD, OHIO.—Bids are asked until 11 a. m., Dec. 6 by B. M. Cook, Village Clk., for labor and material necessary for Sections 1 and 10 of the Detroit St. sewer main.

HAMMOND, IND.—O'SHEA & O'SHEA, of Hammond, have been awarded contract, at $1.53 per lin. ft., for the construction of a pipe sewer in Highland St. Bids were opened on Nov. 19.

KNIGHTSTOWN, IND.—JAMES GARVEY has been awarded contract, at $3,500, for the construction of a sewer in and along Washington St., from the first alley south of Clay St. to the intersection of Washington and Third, with a 360-ft. branch on Jackson St. The work includes 800 lin. ft. of 15-in. pipe, 510 ft. of vitrified 10-in. vitrified sewer pipe and necessary catch basins, manholes, inlets and house connections. Bids were opened on Nov. 16.

SAGINAW, MICH.—CHARLES KOCH has been awarded contract, at $10,757, for the construction of the Ellsworth sewer.

FARMINGTON, ILL.—Plans for the construction of a sewer system will be prepared. H. C. Wilson is Secy. Bd. of Local Improvements.

HIGHLAND PARK, ILL.—The E. R. HARDING CO. has secured contract for constructing sewers in the southern portion of the city, together with the sewage purification works, at $36,617.

METROPOLIS, ILL.—The city proposes to construct a sewer system. Estimated cost, about $60,000.

HAMBURG, IOWA.—We are officially advised that bids were received as follows by the city for the construction of a 12-in. trunk sewer: DUNNEGAN & CORBY, Shenandoah, Iowa, $3,036 (awarded contract); M. A. Camery, Harlan, Iowa, $3,318; Independent Construction Co., Davenport, Iowa, $3,155. The J. S. Worley Co., Kansas City, Mo., are Engrs.

DES MOINES, IOWA.—John W. Budd, City Engr., has decided to recommend the reconstruction and extension of the local sewer system. Estimated cost, $150,000.

CLARINDA, IOWA.—JOHN WOODEN has been awarded contract, at 39¾ cts. per ft., for constructing a sewer from North 17th St., 1,000 ft. in length, and at 35 cts. per ft., for the construction of a sewer from East Garfield St., 520 ft. in length.

ST. PAUL, MINN.—O'NEIL & PRESTON have been awarded contract, at $3,196, for the construction of a sewer from Lexington Parkway to Griggs St.

FORT LEAVENWORTN, KAN.—The R. J. & W. M. BOYD CONSTRUCTION CO., Fifth and Central Sts., Kansas City, Mo., has been awarded contract for the construction of trunk sewers.

MITCHELL, S. DAK.—Contract for constructing lateral sewers, bids opened on Nov. 15, has been awarded by the city to J. J. DUNNEGAN, of Shenandoah, Iowa, at $10,507. L. L. Ness is City Audr.

MISSOULA, MONT.—C. W. Swearingen, of Great Falls, has completed plans for a sewer system, including all sections north of Missoula River. Estimated cost, $186,745.

CAMERON, MO.—A preliminary survey is being made for the construction of tile pipe sewers. W. S. Shields, 140 Dearborn St., Chicago, Ill., is Engr.

WEST JOPLIN (Joplin post-office), MO.—Specifications have been completed by the City Engineer for the construction of sanitary sewers here.

LITTLE ROCK, ARK.—C. C. Brown, Engr., of Indianapolis, Ind., engaged by the city to report on the septic tanks of Little Rock, will recommend that the city construct a sewer to convey the effluent from all the tanks in the southwestern part of city to a point south of the railroad tracks beyond the city limits.

LAREDO, TEX.—A. DENTZ & BRO., of Laredo, have secured contract for the construction of a 24-in. pipe sewer, at $7,000. Bids were opened on Nov. 10. A. V. Woodman is City Secy.

HOUSTON, TEX.—Bids will be received until noon, Dec. 13, by Dan C. Smith, Jr., City Cotroller, for the construction of sanitary sewers in Fifth Ward, as follows: 3,065 lin. ft. of 30-in., 2,850 lin. ft. of 24-in., 1,375 lin. ft. of 20-in., 11,151 lin. ft. of 15-in., 1,552 lin. ft. of 12-in. and 450 ft. of 10-in. vitrified pipe.

McALESTER, OKLA.—Bids are asked until 7.30 p. m., Dec. 6, by J. M. Gannaway, City Clk., for the construction of various sewers.

OKLAHOMA CITY, OKLA.—Bids are asked by the city until Dec. 6 for the construction of the Broadway and Walker Ave. storm sewers; also for lateral sewers in certain portions of Culbertson's East Highland, Culbertson's Heights; Jordan Pl., etc. Bob Parman is City Clk.

TULSA, OKLA.—The city proposes to spend about $65,000 for the construction of brick and concrete sewers. D. C. Fenstermaker is City Engr. E. B. Cline is City Audr.

RAMONA, OKLA.—See item under Water Supply—Irrigation.

TUCUMARI, N. MEX.—The City Council has awarded contract for the construction of a sewer system to G. JAEGER, of Rich Hill, Mo., the lowest bidder, at $71,940. The contract calls for 69,000 ft. of sewer.

HOOD RIVER, ORE.—See item under Water Supply—Irrigation.

SALT LAKE CITY, UTAH.—The JAMES KENNEDY CONSTRUCTION CO., Salt Lake City, has been awarded contract for sewer extension No. 225, at $101,832. George O. Chaney is City Engr.

TORONTO, ONT.—See items under Light and Power Plants and under Water Supply—Irrigation.

GARBAGE DISPOSAL.

EDEN, ME.—Bids are asked until 2 p. m., Dec. 4, by the Board of Health at the First National Bank, Bar Harbor, for the disposal of garbage.

PHILADELPHIA, PA.—EDWIN H. VARE Pennsylvania Bldg., Philadelphia, Pa., was awarded the annual street-cleaning contract for 1910 on Nov. 22 by the city at an increase of $100,000 over the amount for the present year. This year's bid was $1,290,000. The contract includes the payment to the Rapid Transit Co. of $112,000 instead of $187,000 as last year, and making passages through snow and mud to the rear end of trolley cars at street crossings, besides the separate collection of paper and household refuse.

Bids were also opened as follows for the removal of garbage for next year: Penn Reduction Co., $497,988; Peoples Bros., $525,000.

For the removal of snow from the streets in the center of the city Peoples Bros. were the lowest bidders at the following prices: single team hauls to sewer openings, 68 cts. each; double team hauls, same, 85 cts.; single team hauls to dumps, 70 cts., and double team hauls, same, $1.92.

COLUMBUS, OHIO.—The Board of Public Service has awarded contract for 30 wagons for the garbage department to the KILBOURNE & JACOBS MFG. CO., Lincoln and North Fourth Sts., of Columbus, at $83 each for the bodies, and to the STUDEBAKER BROS. CO., at $115.15 each for the gears. The Studebaker Co. will provide the Archibald patented wheels. The Board also awarded contract for four cars for the Garbage Department to ARTHUR KOPPEL, of Philadelphia, at $1,891 each.

TORONTO, ONT.—See item under Light and Power Plants.

STREETS AND ROADS.

CONCORD, N. H.—Bids are asked by A. W. Dean, State Engr., Concord, until 5 p. m., Dec. 8, for grading and surfacing with gravel about 3½ miles of the West Side road in the town of Lebanon, and for grading and surfacing with gravel about one and one-half miles of the West Side road in the town of Hanover.

LAWRENCE, MASS.—The contract for paving Merrimack St. has been let by the Mayor to PATRICK HOLLAND, acting in the absence of his brother, Philip, who will begin the excavations at once.

PROVIDENCE, R. I.—We are officially advised that bids were received on Nov. 23, by the Board of Contract and Supply for furnishing and delivering for the Department of Public Works, f. o. b. cars at the city yard, S. Providence, about 8,000 sq. yds. granite paving blocks from quarries at or in the vicinity of Westerly, R. I., or Millstone, Conn.; alternate bids will be considered for 4,000 sq. yds. of such blocks from quarries at or in the vicinity of Hurricane Island, Me., to be delivered alongside dock at the city yard, Providence. Henry Fletcher is Mayor and Chn. The contract has been let to JOHN CATTO, of Westerly, R. I., at $1.44.

NEW HAVEN, CONN.—See item under Bridges.

MINEOLA (L. I.), N. Y.—Bids were received on Nov. 22 by the Board of County Supervisors for macadamizing Marcus Ave. in North Hempstead, and the contract has been awarded to ANDREWS BROS., of Mineola, as follows: 15,000 cu. yds. grading, 30 cts.; 7,826 sq. yds. macadam, 72 cts. if finished old way, sand screenings, etc.; 9,387 sq. yds. macadam, 82 cts. if tarvia is used as binder; 9,387 sq. yds. macadam, 83 cts. if standard asphalt is used as binder; 120 lin. ft. 12-in. culvert, $1.75; 72 lin. ft. 16-in. culvert, $2.25. Total bid, $27,000. H. E. Hawkhurst, of Westerly, L. I., is Engr.

*NEW YORK, N. Y.—We are officially advised that bids were received on Nov. 18 by the Board of Water Supply for Contract No. 59, construction of about 27.5 miles of highways, including clearing, grading, building of culverts, ditches, drains, guard rails and retaining walls around the Ashokan Reservoir in the town of Oliver, Marbletown, Hurley, Woodstock and Kingston, Ulster County, N. Y., and that the contract has been awarded to the C. P. BOWER CONTRACTING CO., Bulletin Bldg., Philadelphia, Pa., at $323,861. Itemized bids are given under Contract Prices.

Bird S. Coler, Pres. Boro. of Brooklyn, has awarded contracts on bids received on Nov. 17 for paving various streets in Brooklyn as follows: For regulating and repaving with asphalt pavement on a concrete foundation the roadway of Adams St., from Johnson to Willoughby Sts., together with all work incidental thereto, to the BARBER ASPHALT PAVING CO., 30 Church St., New York, at $4,184; the roadway of Alabama Ave., from Fulton St. to Atlantic Ave., to the BARBER ASPHALT PAVING CO., at $1,831; the roadway of Keap St., from Grand St. to Union Ave., to UVALDE ASPHALT CO., 1 Broadway, New York, at $6,234; the roadway of Lafayette Ave., from Nostrand to Tompkins Aves., to UVALDE ASPHALT CO., at $13,408; the roadway of Lafayette St., from Flatbush Ave. extension to Hudson Ave.; Willoughby St., from Gold St. to Fleet Pl., and Duffield St., from Johnson St. to Myrtle Ave., to BROOKLYN ALCATRAZ ASPHALT CO., 407 Hamilton Ave., Brooklyn, at $6,419; the roadway of Sackman St., from Pitkin to Livonia Aves., to UVALDE ASPHALT CO., at $16,600; the roadway of Van Siclen Ave., from Glenmore to Pitkin Aves., to UVALDE ASPHALT CO., at $3,270; for regulating and repaving with granite pavement on a concrete foundation the roadway of Concord St., from Jay St. to Flatbush Ave. extension, to NORTON & GORMAN CONSTRUCTION CO., 303 Douglas St., Brooklyn, at $3,426; the roadway of Johnson St., from Flatbush Ave. extension to Gold St., no bids received; for regulating, grading and repaving with granite pavement on a concrete foundation the roadway of Albany Ave., from Montgomery St. to Lefferts Ave., to NORTON & GORMAN CONSTRUCTION CO., at $16,481; for regulating, grading and paving with granite pavement on a concrete foundation the roadway of Apple Ave., from Flushing Ave. to Metz St.; Pear St., from Apple to Clinton Aves., and Peach St., from Apple to Clinton Aves., within Wallabout Market, together with all work incidental thereto, to HENRY P. GEORGE, at $15,060.

Bids are asked by Bird S. Coler, Pres. Boro. of Brooklyn, until 11 a. m., Dec. 8, for regulating and repaving with wood block, asphalt and granite and for laying sidewalks on various streets in Brooklyn.

MILBURN, N. J.—J. FRED CHAPMAN and L. BARNBERGER have been awarded the contract for paving with telford and macadam the Short Hills road, between Milburn and Livingston, at about $47,000.

FLEMINGTON, N. J.—Bids will be received by the Board of Freeholders of the County of Hunterdon until Dec. 16 (readvertisement) for building the Asbury-Ludlow Station road, in the County of Hunterdon. Grant Davis, County Engr., White House Station, N. J.; John W. Sharp is Dir.

The DELAWARE RIVER & QUARRY CONSTRUCTION CO., of Lambertsville, N. J., has secured contract for constructing asphalt oil binder roads in Hunterdon County as follows: Ringoes-Woodville road, 21,547 ft., $35,757; Whitehouse-Lebanon road, 25,050 ft., $39,381, and Milford road, 27,070 ft., $34,380. Bids were received Nov. 16.

WEST NEW YORK, N. J.—Bids are asked by James L. Wolfe, Town Clerk, until 8 p. m., Dec. 7, for the improvement of McKinley Pl., from 23d St. to a point 200 ft. south thereof.

BUTLER, PA.—Bids are asked by the Town Council until 8 p. m., Dec. 7, for the construction of stone, brick or cement walks. H. E. Coulter is Secy. of Council

READING, PA.—We are officially advised that the lowest bids of each contractor (according to material to be used) for 23,977 ft. of road work in Tilden County, Pa., submitted on Nov. 22 to Joseph W. Hunter, State Highway Comr., Harrisburg, Pa., are as follows: Edwards Bros., Yardley, Pa., three bids, lowest, $87,269; Central Construction Co., Berwick, 18 bids, lowest, $44,426; Heff & Ringer, Slatington, Pa., four bids, lowest, $58,540; B. B. Gonder, Strasburg, six bids, lowest, $43,904; F. W. Bornemann & Co., Lansdowne, Pa., eight bids, lowest, $53,506; James Christiano, Shamokin, Pa., six bids, lowest, $51,088; William McClellan, Strafford, Pa., six bids, lowest, $51,254; C. P. Bower Construction Co., Bullitt Bldg., Philadelphia, $68,294; Fiss & Hartman, Shamokin, six bids, lowest, $51,743; Ambler-Davis Co., Philadelphia, eight bids, lowest, $43,698; Fushkill Quarry Co., Easton, Pa., two bids, lowest, $52,222; Juniata Paving Co., Harrisburg, Pa., five bids, lowest, $53,795; William C. Evans, Ambler, Pa., seven bids, lowest, $47,521; Willauer & Co., Pottstown, Pa., six bids, lowest, $67,030; Thomas Melhan & Sons, Inc., Mt. Airy, Pa., 36 bids, lowest, $48,260. Contract has not been let.

UPPER MARLBORO, MD.—Bids will be received until noon, Dec. 7, by the Board County Commissioners for grading and macadamizing about one mile of highway, between the District of Columbia line and Suitland Road. Henry St. J. L. Briscoe is Clerk.

ARLINGTON, VA.—Bids will be received by Maj. M. Gray Zalinski, Q. M., Washington, D. C., until 11 a. m., Dec. 20, for grading, installing drainage, etc., at the Arlington National Cemetery.

BIRMINGHAM, ALA.—See item under Sewers.

HUNTSVILLE, ALA.—Bids will be received until Dec. 28, by Thomas W. Smith, Mayor, for paving, curbing, etc., portions of Holmes, Clinton and Eustic Sts., being in all about 20,600 sq. yds. pavement and 11,200 ft. curb and gutter. Bids to be submitted for the following material: asphalt, sheet asphalt with paint coat, sheet asphalt with binder course, bitulithic, wooden block, vitrified brick and Blome granitoid cement pavement.

SHREVEPORT, LA.—An election held on Nov. 23 authorizes the city of Shreveport to issue $250,000 in bonds for street improvements, of which about $200,000 is for street paving and the balance for storm sewers and engineering contingencies. An ordinance has been passed by the City Council designating the streets to be paved (54 streets and six alleys), as the city only pays for one-third of the paving, the property owner on each side one-third and the street railway for its track. This will mean an expenditure of over $600,000 for street paving. This work will be advertised for at once, as all preliminary estimates have been made. Dr. S. A. Dickson is Mayor; George R. Wilson, City Engr., Shreveport, La.

*PADUCAH, KY.—We are officially advised that bids were received on Nov. 23 by the Board of Public Works for constructing 96,500 sq. ft. concrete sidewalks, 17,620 lin. ft. granite curbing, 17,620 lin. ft. concrete gutter, 7,250 sq. ft. concrete driveways, 1,700 lin. ft. c.-i. drain pipe. Work to be commenced as early in the spring of 1910 as weather will permit and completed on or before Oct. 1, 1910. The bids follow: M. H. Weikel, Paducah, $33,954; A. T. MILLER, Lynchburg, Va., $31,201 (awarded contract); Bigler Bros., Goldboro, N. C., $33,286; Wilcox & Caldwell, Paducah, $33,816; W. Y. Noble, Paducah, $33,696; Meacham Contracting Co., Hopkinsville, Ky., $32,361; George A. Gardner, Paducah, $35,602; George W. Katterjohn, Paducah, $32,472; J. D. McGee, Augusta, Ga., $33,075; Charles L. Robertson, Paducah, $39,754; Yancey & Johnson, Paducah, $38,771; A. C. Butterworth, St. Louis, Mo., $40,724; W. M. Leftwich Co., Nashville, Tenn., $31,984; Thomas J. Sale, Enid, Okla., $31,562. L. A. Washington is City Engr.

BOWLING GREEN, OHIO.—Bids are asked until noon, Dec. 20, by Alexander Williamson, Clerk Bd. of Public Service, for labor and materials for the improvement of Byall Ave., from the east line of Main St. to the west curb line of Summit St.

CINCINNATI, OHIO.—Bids will be received by the Board and Director of Public Service of the city of Cincinnati, Ohio, at office of said Board and Director of Public Service until noon, Dec. 6, for furnishing the necessary labor and materials for the improvement of Houmann Alley, from Broadway to Spring St., by grading, setting granite curb, paving the roadway with brick and constructing the necessary drains. John J. Wenner is Clerk.

Bids are asked at the same place until noon, Dec. 3, for furnishing the necessary labor and materials for the improvement of Gest St., from the east curb line of McLean to State Aves., by grading, setting granite straight and circular curbs and crossings, paving the roadway with granite and constructing the necessary drains and inlets.

SHAWNEE, OHIO.—Bids will be received by John D. Davis, Village Clerk, until noon, Dec. 17, for paving Main St. with vitrified brick.

KENDALLVILLE, IND.—Bids will be received until 7.30 p. m., Dec. 7, by William P. Myers, City Clerk, for paving approximately 21,000 sq. yds. of street with either sheet asphalt, brick bitulithic, or creosoted wooden block ;also approximately 8,000 ft. cement curbing.

INDIANAPOLIS, IND.—The Board of Public Works has awarded contracts for constructing cement walks as follows: On Keystone Ave., to M. SAPIRIE at $1.29 per sq. yd., and 16th St., to JOHN ARNOLD, at $1.29 per sq. yd.

WABASH, IND.—We are officially advised that bids were received on Nov. 22 by Fremont McLees, City Clerk, for construction of cement sidewalks on both sides of Spring St., from Manchester Ave. to Main St. The contract has been let to LAMBERT BROS., of Wabash. Will Fowler is City Engr.

MUNCIE, IND.—Bids are asked by Joseph E. Davis, Audr. of Delaware County, until 10 a. m., Dec. 8, for grading, draining and paving with brick the Clark Road in Center Township.

DECATUR, IND.—Bids are asked by the City Council until 7 p. m., Dec. 7, for constructing a sidewalk along Mercer Ave., Decatur.

CHAMPAIGN, ILL.—JOHN W. STIPES has secured the contract for paving with Culver block a portion of Fourth St., at $35,571.

PIPER CITY, ILL.—Bids will be received until Dec. 18, by N. G. Plank, City Clerk, for constructing 8,231 sq. yds. single course brick pavement on 6-in. concrete base, and 2,572 lin. ft. sandstone curb; also sewer pipe, drain tile, etc.

CLINTON, ILL.—The Board of Local Improvement on Nov. 15 has awarded the contract for street improvements in Clinton to JOHN BRETZ, of Springfield, Ill., at $25,717.

NORTH CHICAGO, ILL.—Bids were received as follows by R. C. Holliday, Ch. of Bureau of Yards and Docks, Navy Dept., Washington, D. C., until Nov. 27, for about 12,000 sq. yds. of macadam paving and 6,700 sq. yds. of concrete sidewalks, with curbing, drains, catch basins, etc., for the U. S. Naval Training Station at North Chicago: Simpsom Construction Co., 704 Washington St., Chicago, Ill., (4) $26,000; James Corse, 1206 Park Ave., Racine, Wis., (1) $87,325, (2) $96,700, (4) $50,787, (5) $138,112, (6) $147,487, (8) 80 cts., (9) 16 cts., (10) 12 cts., (11) 25 cts. James Cape & Sons, 468 Water St., Racine, Wis., (1) $54,060, (2) $57,060, (3) $54,060, (4) $39,480, (5) $90,540, (6) $93,540, (7) $90,540, (8) 40 cts., (9) 8 cts., (10) 20 cts., (11) 15 cts.; T. H. Iglehart, The Rookery, Chicago, Ill., (5) $154,067, (6) $153,500, (8) 60 cts., (9) 14 cts., (10) 8 cts., (11) 16 cts.; Warren Bros. Co., 59 Temple Pl., Boston, Mass., (3) $82,500, (4) $26,500, (7) $107,000 (8) 35 cts., (9) 25 cts., (10) 3 cts., (11) 10 cts.

ST. PAUL, MINN.—The Board of Public Works, P. Van Hoven, Pres., has awarded the contract for grading Snelling Ave., from Randolph to West Seventh St., to D. W. MOORE, city, on a bid of $13,998.

Bids will be received until Dec. 9 by the Board of County Commissioners for constructing the Otter Lake Road. Edward G. Krahmer is County Audr.

LAWRENCE, KAN.—Bids were received on Nov. 15 for paving two streets. W. W. GILMORE, of Topeka, Kan., has secured contract for the work as follows: Mississippi St., 3,500 sq. yds. brick paving on concrete foundation, and with cement granite fill, $1.33, and 3,000 ft. curb and gutter, 51 cts.; and for New Jersey St., 9,300 sq. yds. brick paving, sand fill, $1.29; 7,400 ft. concrete curb, 31 cts., and excavation, 35½ cts. per cu. yd. Holland Wheeler is City Engr.

OTTAWA, KAN.—Bids are asked until 5 p. m., Dec. 15, by F. A. Marcell, City Clerk, for grading, curbing, guttering and macadamizing the following streets in the city of Ottawa: Fourth St., from Cedar to Cherry Sts.; Fifth St., from Cherry to Ash St.; Ash St., from Fourth to Fifth St.; Elm St., from First to Seventh St.; Cedar St., from Fourth to Tenth St.; Logan St., from Maine to Cherry St.; in all 38 blocks, or approximately 55,000 sq. yds. of macadam, and 20,000 lin. ft. of concrete curb and gutter. A. H. Slater is Mayor.

OKLAHOMA CITY, OKLA.—We are officially advised that on Nov. 22 the following bids were received by the Mayor and Council for paving and grading: Paving—Walker St., California to Elm Sts., 21,700 yds. asphalt paving, 17,000 yds. excavation, 8,000 ft. curb and gutter, 1,250 ft. 10-in. pipe, 740 ft. 15-in. pipe, 1,075 ft. 18-in. pipe, nine manholes, 30 catch basins, 100 yds. pavement, 1,000 ft. headers: Barber Asphalt Paving Co., $58,827; Cleveland Trinidad Co., $56,441; Western Paving Co., $55,793. Grading—Western Ave., 20,000 yds. earth excavation, 5,000 yds. embankment, 5,000 yds. rock, A. Key, $6,200; J. R. Alley, $6,400; F. L. Adams Co., $6,450. Ellison Ave. and other streets, 16,000 yds. earth excavation, 800 yds. embankment, 2,000 yds. rock, A. Key, $3,272; J. R. Alley, $3,672; F. L. Adams Co., $3,680. 31st and 33d Sts., 17,000 yds. excavation, 7,000 yds. embankment, 3,500 yds. rock, A. Key, $4,750; J. R. Alley, $5,450; F. L. Adams Co., $5,520. Military Ave. and other streets, 19,000 yds. excavation, 12,700 yds. embankment, 6,000 yds. rock, A. Key, $6,618, J. R. Alley, $7,818; F. L. Adams Co., $8,325. W. C. Burke is City Engr.

GOLDEN, COLO.—Bids are asked until Dec. 18 for constructing a permanent driveway or boulevard. C. W. Comstock is State Engr., Denver.

ELLENSBURG, WASH.—The City Council has ordered Third St. to be paved from the Northern Pacific depot to the city limits. Macadam will be used and the cost is estimated at $20,000. Bids will be invited at once.

HOOD RIVER, ORE.—See item under Water Supply-Irrigation.

PORTLAND, ORE.—A contract for paving Belmont St., between East 36th and East 39th Sts., has been awarded to the PACIFIC BRIDGE CO., Mohawk Bldg., Portland, for $13,000.

OAKLAND, CAL.—The City Council has adopted resolutions providing for the construction of sidewalks on portions of 39th, 40th, Montgomery, Jackson, School, 62d and Canning Sts.

HOLLYWOOD, CAL.—Resolutions of intention have been passed to grade, gravel and oil Martel Ave., and construct cement curbs and gutters on same. A. W. Reesemyer is Supt. of Streets, Hollywood, Cal.

REDLANDS, CAL.—The City Council has presented resolutions of intention to construct, at Redlands, stone curbs and cement gutters and sidewalks on E St.; also to construct cement sidewalks on Center St., from Olive Ave. to the city limits.

SANTA ANA, CAL.—The City Council has passed resolutions of intention to construct asphalt concrete pavement and cement curbs and gutters on French St.; also to construct cement curbs and gutters on South Main St. Edward Ledford is City Clerk.

PHOENIX, ARIZ.—Bids will be received until 2 p. m., Dec. 10, by the Board of Trustees of Special Road District No. One for construction of 6.625 miles of oil macadamized road. The Board of Trustees will supply steam roller, rock crusher, road grader, sprinkling wagon and the asphaltic oil, while the contractors will be required to furnish all other tools and machinery necessary for the satisfactory completion of the work. Contractors are also requested to submit bids on the basis of their supplying the steam road roller (not less than ten tons) and rock crusher. F. McClure is U. S. Highway Comr., Phoenix.

*SALT LAKE CITY, UTAH.—The Board of Public Works on Nov. 5 awarded the contract for paving with asphalt Third South St., to STRANGE & MAGUIRE, of Salt Lake City, at $147,852.

TORONTO, ONT.—See item under Water Supply-Irrigation.

MANUFACTURING PLANTS.

(denotes that this work is advertised in Engineering News.)*

MANCHESTER, N. H.—The Leighton Machine Co., manufacturers of underwear and sweater machinery, winders, etc., together with the Dodge Needle Co., are planning to erect plant in East Manchester. It is probable that a building double the size of the one now occupied by them will be erected in the spring.

HARTFORD, CONN.—The Hartford Carpet Co. has plans drawn for a mill on land inside of the mill gates at Thompsonville. The building will be 385 × 110 ft., four stories. It will be of brick, like all other structures of the mill group. Construction will begin soon. The new mill will be for making moquette carpet, and 40 looms will be placed in the building, giving employment to nearly that number of additional hands.

BUFFALO, N. Y.—The Niagara Brewing Co., John Hagen, Pres., 308 Elk St., has completed plans and awarded contract to JOSEPH DUNFEE, 852 Ellicott Sq. Bldg., for construction of a brewing plant to be erected at Clinton St. and the Delaware, Lackawanna & Western R. R., at a cost of $300,000.

NEW YORK, N. Y.—We are officially advised that on Nov. 15, Nicholas J. Hayes, Fire Comr., awarded the contract for furnishing all the labor and materials required for additions and alterations to heating and power plant in the Fire Department repair shops building, northeast corner of 56th St. and Twelfth Ave., Boro. of Manhattan, to JAMES CURRAN MFG. CO., 512 West 36th St., at $8,700.

ROCHESTER, N. Y.—The Fireproof Film Co. will build a 2-story factory building, 80 × 500 ft., of reinforced concrete, at Lake and Dewey Aves., to cost approximately $300,000. Architect has not yet been retained. Henry Kahn is Mgr., 3 Burke Terrace.

Michaels, Stern & Co., clothing manufacturers, 77 Clinton Ave., North, have filed plans with the Fire Marshal for a factory to be erected at Central Ave. and Chatham St., at an estimated cost of $30,000. The building is to be 100 × 104 ft., and four stories high. About 1,000 persons will be employed.

SYRACUSE, N. Y.—We are officially advised that Charles D. Wilsey, Arch., Nottingham Bldg., Syracuse, is preparing plans for a factory building, 65 × 140 ft., to be erected by the H. E. Mills Mfg. Co., manufacturers of oils, etc., 324 New Rosenbloom Bldg. Estimated cost, $15,000. The building will be of frame construction, three stories high. It will be erected by day labor.

JERSEY CITY, N. J.—Shops, to cost $300,000, will be built at Henderson St., near the Pennsylvania R. R. tracks, by the Hudson & Manhattan R. R. Co., 30 Church St., New York. Hugh Hazelton, Engr., 100 Broadway, will take bids for construction when the plans are completed.

CHESTER, PA.—Negotiations between T. Woodward Trainer, real estate broker of this city, and the Samuel Courtauld & Co., of London, England, pending since last July, have culminated in the acquisition of a large tract of land in Marcus Hook and Lower Chichester Township by that concern. Here will be erected an artificial silk factory. Plans for the plant have been completed by Ballinger & Perrot, Archs., 1211 Arch St., Philadelphia. The following buildings will be erected: Main factory, 130 × 400 ft., one story, with sawtooth skylights, adjacent to which will be an engine house 54 × 150 ft. and boiler house 90 × 65 ft., both one story. There will also be a winding and sorting building 76 × 131 ft., five stories in height, and two other manufacturing buildings, one 64 × 100 ft., one story, and the other 42 × 71 ft., two stories and basement. It is stated that the buildings to be erected immediately will give employment to at least 1,000 persons; also, that within three or four years between 3,000 and 4,000 persons will engage in the operation of the proposed factories. Estimates will be taken by the architects at once.

PHILADELPHIA, PA.—The John B. Stetson Co., hat manufacturers, will begin work immediately on an addition to its plant at Montgomery and Germantown Aves., which will cost $250,000. A permit was obtained by G. R. Kurrie, Engr., 637 Watts St., for an 8-story and basement building, 50 × 340 ft., and for a rear building, 50 × 60 ft., at the northeast corner of Montgomery and Germantown Aves., on ground recently purchased by the company. Both buildings, it

is expected, will be completed next spring.

William H. Gravell has been granted a permit for a 3-story concrete manufacturing plant, 100 × 287 ft., to be built at the southwest corner of Broad and Somerset Sts., for the Haney-White Co., 2730 North Broad St. Cost, $75,000.

HAGERSTOWN, MD.—The Western Maryland R. R. Co. has awarded a contract to W. H. & C. F. THOMPSON, Law Bldg., to build two fireproof additions to its shops at Hagerstown, Md. Plans for the improvements were made by the company's architect and call for two additions to be built to the blacksmith and machine shops. The dimensions of the addition to the blacksmith shop will be 50 × 50 ft., and to the machine shop, 40 × 100 ft. Brick and steel will be used principally in the construction. There will be a steel truss roof. The improvements will cost about $25,000. C. M. Tritsch is Master Mechanic, Hagerstown.

MOUNTAIN ISLAND, N. C.—The W. & J. Knox Net & Twine Co., of Mountain Island, N. C., has effected a reorganization, electing A. B. Cobb, Supt.; C. E. Hutchinson, Gen. Mgr., and R. F. Craig, Gen. Supt. This company will be known as the Mountain Island Cotton Mills in future, and intends to improve or add to the present machinery, which includes 4,000 spindles and accompanying apparatus for net and twine production.

FLAT ROCK, N. C.—The Skyland Hosiery Co.'s finishing plant at Flat Rock, N. C., was destroyed by fire lately. It was valued at about $60,000. The company will rebuild, probably of reinforced concrete, so as to minimize the possibility of fire loss in future. Its burned plant employed about 100 operatives.

LUMBERTON, N. C.—A charter has been granted the Jennings Cotton Mill Co., of Lumberton, N. C., with an authorized capitalization of $500,000 for general textile manufacturing. The incorporators are H. B. Jennings, L. H. Caldwell and others.

WADESBORO, N. C.—L. D. Robinson and T. L. Caudle, of Wadesboro, N. C., are interested in plans for the construction of a cotton factory in this city. They are now soliciting subscriptions to stock, and hope to organize a company soon.

GREENVILLE, S. C.—The Union Bleaching & Finishing Co., of Greenville, S. C., has decided to increase its capital stock from $300,000 to $400,000. This company has ordered additional machinery for the purpose of increasing the capacity of its bleaching and finishing plant about 50%. It contemplates discontinuing the use of steam power and will install an electrical equipment, the supply of electricity to be furnished by the Greenville transmission lines of the Southern Power Co., of Charlotte, S. C.

JACKSONVILLE, ALA.—A mill will be built at Jacksonville by George P. Ide, A. H. Robbins and others. It is reported that it will be a weave mill of 200 looms.

ENSLEY, ALA.—Plans are under way, it is stated, for building a rod mill and connected wire drawing and wire nail mills by the American Steel & Wire Co. in the Birmingham, Ala., district. The capacity of the wire plant will be 400 tons of finished product a day, and the estimated cost of construction is $3,000,000. Work will begin on the buildings soon. The site is about a mile from the Ensley open hearth works, and between Ensley and Wylam.

CLEVELAND, TENN.—The Weiss Hosiery Mill, of Cleveland, Tenn., has been incorporated with a capital stock of $25,000, and will establish a plant. This company will erect a 50 × 150-ft. brick building, and will install machinery for knitting hosiery. Its incorporators are: C. H. Weiss, George L. Hardwick, P. H. Walker, J. E. Mayfield and P. B. Mayfield. Mr. Weiss will be the active manager of the new enterprise.

BREWSTER, OHIO.—The Cleveland "Leader" states that Judge R. W. Tayler, Receiver for the Wheeling & Lake Erie R. R. Co., has authorized a contract with WESTINGHOUSE, CHURCH, KERR & CO., 10 Bridge St., New York, at $1,000,000 for the construction and equipment of the railway company's proposed locomotive shops at Brewster. The contract was made about three months ago and work at Brewster is already under way. Brewster, at the junction point of the two main divisions of the Wheeling & Lake Erie, will become the terminal of the system, and in addition to the shops the terminal yards will be located there. Employment will be given to 1,000 men when the work now under way is completed. The Brewster shops, equipped to rebuild locomotives, will take away from Norwalk some work that has long been done there. The Norwalk shops burned a year ago, and they have been only temporarily re-established in view of the new shops at Brewster. Repair work will be done at Canton, as at present. The car shops of the company at Toledo also will be used.

CINCINNATI, OHIO.—The United States Envelope Co. will start a plant in Cincinnati soon, to be known as the Cincinnati Envelope Co., Division F, U. S. Envelope Co. It will give employment to 8,000 people. This action was decided recently at a meeting of the Executive Committee in Worcester, Mass. The company has plants at Worcester, Springfield and Waukegan, Ill.

CLEVELAND, OHIO.—Plans have been formulated by the Natural Woolen Co. for the erection, probably some time next year, of a 2 or 3-story building, 250 × 130, to take care of the company's increased business. This building will be on the land recently acquired.

The Stuyvesant Motor Car Co. has been incorporated at Columbus, Ohio, with a capital stock of $200,000. The company is preparing to begin the erection of a large plant at once. The offices are located in the Columbia Bldg., Cleveland. The plans are practically approved, but a location has not been definitely decided upon. Several sites are under consideration. The company was promoted by F. H. Stiverson, and the other incorporators are C. J. Castle, R. F. Williams, H. E. Mapes and A. H. Fraunfelder.

GOSHEN, IND.—The Goshen Mfg. Co. will ask for bids for the construction of a $50,000 plant as soon as plans are completed. A. P. Boyer is Pres.

FORT WAYNE, IND.—C. R. & C. H. Jennie are preparing to erect a factory building in this city.

BUFFINGTON, IND.—Bids will be asked soon for the construction of an addition to the Universal Portland Cement Co.'s plant at this city. The present capacity will be doubled, and the plant will then produce 6,000,000 bbls. of cement a year.

DETROIT, MICH.—The Abbottt Motor Co. has been incorporated in this state with $300,000 capital. The company is planning to erect a plant which will produce 11,000 cars a year.

The Detroit "Free Press" states that the General Motors Co. will establish its headquarters in Detroit. It will invest $2,500,000 in a plant to occupy a 50-acre tract which has been purchased at a cost of nearly $300,000 in the northeastern part of the city. This industry, which is to be the central and parent plant for the General Motors Co. operations, is expected to give employment to between 6,000 and 7,000 men. The buildings are planned to cover a ground area of nearly 40 acres and have a floor space of nearly 100 acres. W. C. Durant, of Flint, Mich., Vice-Pres. and Gen. Mgr. of the General Motors Co. The factory will be known as the Central Detroit Plant of the General Motors Co., and in it will be standardized and centralized the manufacture of parts of automobiles for the various subsidary companies.

TEXARKANA, TEX.—The National Lumber & Creosoting Co. has definitely decided to rebuild its Texarkana plant, which was destroyed by fire several weeks ago, and a location has been secured just west of town, where the new plant will be provided with switching facilities from the Texas & Pacific, Kansas City Southern and Cotton Belt. The site consists of 50 acres, a portion of hich is the Tilson tract and the remainder is adjacent to this property. Active work will begin in a very short time on the erection of buildings and the work probably will be completed in time for the installation of the machinery some time this winter. Operations will begin in the early spring. J. T. Logan is Pres. of the National Lumber & Creosoting Co.

MUSKOGEE, OKLA.—S. X. Swimme, of the Phoenix Publishing Co., plans the construction of a cotton mill. He has in view a location where natural gas for fuel, waterpower and a supply of raw cotton may be obtained at minimum prices, and it is stated that he has offers of free power for ten years and of cash and land bonds of $100,000.

OKLAHOMA CITY, OKLA.—The Board of Directors of the Conger Safe Co. has decided to build a factory in Oklahoma City. It will represent an investment of $40,000 and will give employment to 100 men.

CLOVIS, N. MEX.—E. P. Ripley, Pres. of the Atchison, Topeka & Santa Fe Ry. Co., is reported to have announced extensive improvements to the yards in Clovis. The capacity of the shops will be doubled, and 15 stalls will be added to the round-house.

LONG BEACH, CAL.—The Los Angeles Switch & Signal Co. expects to break ground within two weeks for its factory at Long Beach, Cal., Estimated cost, $14,000. Oliver Bryant, one of the directors, will oversee the work.

MISCELLANEOUS CONTRACTS.

(*denotes that this work is advertised in Engineering News.)

U. S. RECLAMATION SERVICE.—All news relative to canal projects, etc., will be found under Water Supply—Irrigation.

CEMENT, ETC.—Toronto, Ont.—See item under Water Supply—Irrigation.

FIRE HOSE.—San Francisco, Cal.—Bids are asked until Dec. 22 by the Board of Public Works for fire hose for the auxiliary fire system.

DITCH.—Anderson, Ind.—Bids are asked by the County Surveyor until 10 a. m., Dec. 4, for construction of a ditch. A. L. Smith, Supt. of Construction.

GRANDSTAND. — Hamilton, Ohio. — The County Board of Agriculture will build an additional grandstand at a cost of $40,000, seating 20,000 people, next spring.

RAILROAD TRACK SCALE.—Fort Barrancas, Fla.—Bids are asked until 11 a. m., Dec. 4, by the post quartermaster, Fort Barrancas for construction of an 80-ton railroad track scale.

*FLOATING DOCK.—Vicksburg, Miss.—Bids will be received by Cept. Clarke S. Smith, Corps Engrs., U. S. A., until noon, Jan. 5, for the construction and delivery of a steel floating dock.

WHARF.—Chinook, Wash.—The Pacific County Commissioners have awarded a contract to BYRES & BURCHAM, of Kelso, Wash., for the construction of a public wharf at Chinook, at $4,400.

SMELTER, ETC.—Evans, Ariz.—The Evans Mines Co., Laughlin Bldg., Los Angeles, Cal., will build a smelter at Evans, Mojave County, Arizona. A 20-mile railroad will also be constructed, it is stated.

DRAINAGE.—Princeton, Ind.—Contract for construction of the Troop draining system has been awarded to the NAPPANEE DRAINAGE CO., of Nappanee, Ind., for $21,982. Total length of drain is 18 miles.

DOCKS.—Long Beach, Cal.—The Board of Public Works has rejected bids recently received for the construction of the municipal docks. The lowest bid was that of Burcham Bros., at $34,988. New Bids will be received.

DITCH.—Blue Earth, Minn.—Bids will be received by J. L. Herring, County Audr., until Dec. 6 for constructing County Ditch No. 7, requiring about 15,213 yds. excavation and 18,737 ft. of 7 to 15-in. tile. Estimated cost, $16,000.

FENCE.—Baltimore, Md.—Bids are asked until 11 a. m., Dec. 8, by the Board of Awards for furnishing and erecting a wrought-iron fence to enclose the athletic field in Patterson Park. J. Barry Nahool, Pres. Bd. Awards.

TILE DRAIN.—Coburg, Ont.—Bids are asked by D. H. Minaker, Town Clerk, until 8 p. m., Dec. 6, for an 8-in. vitrified tile drain, about 2,000 ft. in length and from 6 to 14 ft. in depth, all to be completed on or before July 15, 1910.

STEAMER.—Ottawa, Ont.—Contract has been awarded by A. L. Jarvis, Act. Minister of Agriculture, Ottawa, to PHILIP & SON, LTD., Dartmouth, England, for the construction of a steel steamer for salt water quarantine service at Halifax, N. S.

TELEGRAPH EXTENSIONS. — Winnipeg, Man.—The Canadian Pacific R. R. Telegraph Co. will string about 3,000 miles of additional wire during the coming year, according to a statement made by B. S. Jenkins, Supt. The company now operates 65,000 miles of wire.

SAND FILLING.—Galveston, Tex.—Bids will be received until Dec. 2 by John D. Kelley, City Secy., for furnishing, delivering and spreading to grade 1,180,000 cu. yds. of sand filling, to be placed behind the Galveston County seawall from Eighth and Ave. B to 39th St. and Ave. T.

FOUNTAIN.—San Diego, Cal.—The Board of Park Commissioners of San Diego have selected the plans of Irving J. Gill, Arch., 3719 Albatross St., for the proposed electric fountain to be erected in the Plaza. A fund of $10,000, donated by Louis J. Wilde, is to be expended on the work.

DREDGING.—Columbus, Ohio.—Bids are asked by the State Board of Public Works until noon, Dec. 14, for dredging the Ohio Canal from Cemetery Bar at lock No. 5 A, south of the Portage Summit to lock No. 10 south of Portage Summit to Zoar. Chas. E. Perkins, Ch. Engr. of Public Works.

WHARF.—San Francisco, Cal.—The ASSOCIATED CONTRACTING CO. has been awarded a contract for furnishing material and constructing a bulkhead wharf at Section 11 of the sea wall, near the foot of Beale St., its bid of $45,743 being the lowest of eight received by the Board of Harbor Commissioners.

*DREDGING, ETC.—Chicago, Ill.—Bids will be received until noon, Dec. 15, by the Sanitary District of Chicago, American Trust Bldg., for dredging the present river channel of the South Branch of the Chicago River, from Lake St. to Robey St., and for excavating certain premises adjacent to the Chicago River. I. J. Byran, Clerk.

MASONRY REPAIRS.—New York, N. Y.—Bids were received by the Department of Bridges on Nov. 18, for repair of granite masonry, Manhattan tower foundation of the Manhattan Bridge over the East River, between the Boroughs of Manhattan and Brooklyn. Contract was awarded to the COOPER & EVANS CO., 220 Broadway, at $2,039.

HARBOR WORK.—Long Beach, Cal.—The Los Angeles Dock & Terminal Co., Los Angeles, Cal., is building two miles of railroad at Long Beach, preparatory to dumping 30,000 tons of rock and extending the west jetty to form better protection to the entrance to the harbor. When completed the end of the jetty will be in water 22 ft. deep at low tide.

*MACHINERY.—Cincinnati, Ohio. — Bids were received as follows on Nov. 15 at the office of Col. J. G. Warren, Corps of Engrs., U. S. A., for furnishing and installing operating machinery at Dam 37, Ohio River: G. & W. Mfg. Co., New York, $29,533; New Jersey Foundry & Machine Co., New York, $33,621, and W. Bateson & Co., Wheeling, W. Va., $33,814.

DITCH.—Hamburg, Iowa.—Bids will be reseived until Dec. 30 by G. C. Coleman, County Audr., at Sidney, for excavating the Knox Ditch, near Hamburg. This is dredge work and consists of cutting a ditch about twelve miles long, requiring 807,600 cu. yds. excavation; also for four lateral ditches, aggregating about 52,000 cu. yds. Seth Dean, Engr., Missouri Valley.

DITCHES, LEVEES.—Auburn, Neb.—Bids were received on Nov. 15 by the Nemaha Valley Drainage District No. 2 for constructing ditches, levees and other works of improvement, requiring the removal of about 2,250,000 cu. yds. of earth. Sylvester Reed, Secy. Bids were as follows: Callahan Bros., Omaha, Neb., $199,915; Hummer Construction Co., Marion, Ohio, $197,486.

PNEUMATIC PIPE SYSTEM.—Charleston, S. C.—Bids were received as follows on Nov. 27 by the Bureau of Yards and Docks, Navy Department, Washington for extending the pneumatic pipe system at the Charleston navy yard: R. E. & E. N. Beaty, 100 Broad St., Charleston, $4,039; Newport Contracting & Engineering Co., Newport News, Va., $2,952; McCay Engineering Co., Baltimore, $2,960.

DRAINAGE, LEVEE.—Eldred, Ill.—Bids probably will be received the latter part of December on levee and ditch work for the Eldred Drainage and Levee District. This district is located on the east bank of the Illinois River in Greene County, near Carrollton, Ill. The total amount of levee and ditch work will approximate 1,500,000 yds. Date for time of receiving bids, etc., will be announced later.

DRAINAGE.—Fremont, Neb.—The Elkhorn River Drainage District has adopted plans for drainage work, including 18 sections of river cutoffs aggregating 213,000 cu. yds., 23,000 yds. of embankment, 122 acres of clearing and grubbing and 21 ditches, the latter aggregating over 800,000 yds. Arthur H. Norris, of Fremont, is Engr. Bids will be opened Dec. 15. Full information will be furnished on application to Courtright & Sidner, Attorneys, at Fremont, Neb.

MUNICIPAL IMPROVEMENTS.—Oakland, Cal.—This city has voted in favor of issuing bonds for municipal improvements that include the development of the water front, the erection of a modern city hall and hall of justice and the betterment of its fire and police telegraph and telephone system. The election permits the city to issue bonds in the amount of $3,733,000. Of this amount, $2,503,000 is for water front improvements, $1,150,000 for the new city hall and a hall of justice and $80,000 for the betterment of the fire and police telephone and telegraph system. Frank K. Mott is Mayor.

INNER BASIN SEA WALL.—North Chicago, Ill.—Bids were received as follows on Nov. 27, by the Bureau of Yards and Docks, Navy Department, Washington, D. C., for the construction of an inner basin sea wall at the Naval Training Station, Great Lakes, North Chicago, Ill.: Great Lakes Dredging & Dock Co., Chicago, (1) $42,800, (2) $43,900; Fitz Simmons & Connell Co., Chicago, (1) $44,197; Greiling Bros. Co., Green Bay, Wis., (1) $54,480, (2) $53,980; James Corde, Racine, Wis., (1) $49,937, (2) $47,037; Standard Construction Co., Chicago, $59,800, both items; George R. Keachie, Madison, Wis., $49,870, both items; Gabriel Bros. Construction Co., 135 Broadway, New York, (1) $49,925; P. W. Galloway, Racine, Wis., (2) $56,950.

WHARF, ETC.—Aliquippa, Pa.—The Jones & Laughlin Co., Ross St., Pittsburg, has let contract for the erection of a wharf and ice breakers at Aliquippa to the ENTERPRISE CONTRACTING CO., Fulton Bldg., Pittsburg. The work is to cost $25,496, and when completed will afford the Jones & Laughlin plant an opportunity to make extensive shipments by water. In connection with the above contract the Pittsburg & Lake Erie R. R. Co. has let the contract to the LEWIS & WOOD CO. for building a subway beneath the P. & L. E. R. R. tracks at Aliquippa, leading in a direct route to the Jones & Laughlin plants. The subway is to be a concrete steel reinforced arch beneath the six tracks of the railroad, and is to be used as a street subway leading from the general offices of the Jones & Laughlin Co. to the main plants.

*BARGE CANAL.—Albany, N. Y.—Bids are asked by F. C. Stevens, Supt. Public Works, until noon, Dec. 28, for Barge Canal Contracts Nos. 33, 44, 70 and 71. Contract No. 33 calls for the construction of lock gates, needle beams, guard and sluice gates, lock valves, etc., at various points in Waterford, Fulton and Whitehall, the estimated cost being $183,618. Contract No. 44 provides for constructing the canal from a point about 1,500 ft. west of Mud Creek to Contract No. 4, in Oneida County, a distance of 7.1 miles; engineer's estimate, $1,926,093. Contract No. 70 provides for the dredging of a channel in the Hudson River and performing work incidental thereto from Waterford to Lock No. 1, a distance of about 3.32 miles; engineer's estimate being $749,300. Contract No. 71 is for constructing in the Hudson River Lock and Dam No. 1 above Waterford, and dredging from Lock No. 1 to Lock No. 2, with all appertaining construction, a distance of 3.96 miles. The engineer's estimate is $1,502,100. Frank M. Williams is State Engr.

U. S. POSSESSIONS.

DREDGE.—Panama.—Bids will be received until 10.30 a. m., Jan. 3 by Capt. F. C. Boggs, Gen. Purchasing Officer, Isthmian Canal Comn., Washington, D. C., for a 10-yd. dipper dredge. (Circular No. 543.)

SUPPLIES.—Panama.—Bids are asked until 2.30 p. m., Dec. 4, by Capt. F. C. Boggs, Gen. Pur. Officer, Isthmian Canal Comn., Washington, D. C., for filler blocks, head rods, switches, frogs, tie plugs, steel castings, etc.

TUG.—Panama.—The Isthmian Canal Commission, Washington, has awarded contract for the construction of a steel tug-boat to PUSEY & JONES CORPORATION, Wilmington, Del., at $83,789, delivered at Balboa, Pacific Port, Isthmus of Panama.

ENGINEERING MATERIALS.— Panama.—Bids were received as follows on Nov. 29 by the Isthmian Canal Commission, Washington, D. C., for $385,000 blasting caps, quintuple strength: E. I. Du Point de Nemours Powder Co., 90 West St., New York, $43,747, Delivered March 1, 1910; Aetna Powder Co., Chicago, $44,243, 60 days; alternative, $39,359, 35 days.

Also for (a) 150,000 railway tie plates, and (b) 30,000 angle splice bars for 70-lb. rails: R. C. Hoffman & Co., Baltimore, (a) $10,770, (b) $8,105; United States Steel Products Export Co., New York, (a) $9,796, (b) $8,569.

EXAMINATIONS.

INSPECTOR.—New York, N. Y.—Applications will be received by the Municipal Civil Service Commission, 299 Broadway, until 4 p. m., Dec. 7, for the position of Inspector, Board of Water Supply. The examination will be held on Jan. 12, at 10 a. m. No application received at this office, by mail or otherwise, after 4 p. m., Dec. 7, will be accepted. Candidates should be active, energetic men in sound health. They will be required to pass a physical examination. Graduates of technical schools of recognized standing are desired. Assignments will be made from this list to any part of the State, and appointees are expected to live near their work. The examination will be largely on general engineering lines, but the knowledge of candidates in question respecting the construction of works for the storage and distribution of water will also be tested. The salary is $4.50 to $5 per day. The minimum age is 22 years.

MECHANICAL DRAFTSMAN. — Portland, Ore.—The U. S. Civil Service Commission announces an examination on Dec. 14-15 to secure eligibles from which to make certifica-

tion to fill a vacancy in the position of Mechanical Draftsman (male), $1,500 per year, Engineer Department at Large, Portland, Ore., and vacancies requiring similar qualifications as they may occur, unless it shall be decided in the interests of the service to fill the vacancy by promotion, reinstatement, or transfer. Age limit, 18 years. Application form 1312. Applications must be filed prior to closing hour on Dec. 4.

CONTRACT PRICES.

(denotes that this work is advertised in Engineering News.)*

STEEL PIPE.—Portland, Ore.—Bids in detail were received as follows on Nov. 9 by the Water Board for steel pipe for connecting mains for Reservoirs No. 5 and No. 6; (A) East Jersey Pipe Co., 90 West St., New York; (B) Riter-Conley Mfg. Co., 55 Water St., Pittsburg, Pa.; (C) Schaw-Batcher Co. Pipe Works, Sacramento, Cal.; (D) The Petroleum Iron Works Co., Farmers Bank Bldg., Pittsburg; (E) Jas. McNeil & Bro. Co., 29th St., Pittsburg; (F) Marine Iron Works, St. Johns, Ore.:

	(A)	(B)	(C)	(D)	(E)	(F)
1,500 lin. ft. 48×5/16" straight pipe.	$6.35	$7.02	$7.75	$7.60	$7.30	$8.20
65 lin. ft. 48×5/16" curved pipe..	6.35	8.80	11.50	9.75	12.50	24.60
420 lin. ft. 36×¼" straight pipe...	4.20	4.50	4.75	4.70	5.00	4.87
25 lin. ft. 36×¼" curved pipe.....	4.20	6.30	7.00	6.15	9.00	14.61
6,000 lin. ft. 30×¼" straight pipe...	3.65	3.65	4.00	4.10	4.30	4.05
115 lin. ft. 30×¼" curved pipe.....	3.65	5.25	6.00	5.35	7.50	12.30
1,680 lin. ft. 24×¼" straight pipe...	3.00	3.20	3.12½	3.45	3.70	3.35
35 lin. ft. 24×¼" curved pipe.....	3.00	5.00	4.50	4.90	6.60	10.05
10,000 lbs. specials—¼" plate........	.08	.056	.08	.06	.095	.093
Total	$40,072	$41,731	$45,440	$45,944	$48,147	$48,939

(A) Delivery to begin in 60 days; complete, Feb. 15, 1910; based on completing shipment in 45 days.
(B) Delivery to begin in 75 days; complete, April 1, 1910.
(C) Delivery to being in 60 days; complete, March 10, 1910.
(D) Delivery to begin in 90 days; complete, April 15, 1910.
(E) Delivery to begin in 60 days; complete, March 15, 1910.
(F) Complete, July 1, 1910. Includes use of Pioneer mineral rubber dip; also six manholes free; above this amount, $18.50 each.

*HIGHWAYS.—New York, N. Y.—Bids were received as follows on Nov. 18 by the Board of Water Supply for Contract No. 59 for constructing 27.5 miles of highways, including clearing, grading, building of culverts, ditches, drains, guard rails and retaining walls around the Ashokan Reservoir in Ulster County, from (A) C. P. BOWER CONSTRUCTION CO., Bulletin Bldg., Philadelphia, Pa. (awarded contract); (B) The C. S. Lamble Co., The Wabash Bldg., Pittsburg, Pa.; (C) American Pipe & Construction Co., 112 North Broad St., Philadelphia, Pa.; (D) Henry P. Burgard Co., Buffalo, N. Y.; (E) Jules Breuchaud Construction Co., 290 Broadway, New York; (F) Joseph B. Pennell & Co., Yonkers, N. Y.; (G) average bid:

	(A)	(B)	(C)	(D)	(E)	(F)	(G)
220 acres grubbing and clearing........	$30.00	$100.00	$100.00	$100.00	$300.00	$250.00	$146.67
230,000 cu. yds. earth excavation........	.55	.52	.60	.65	.85	.75	.65
100,000 cu. yds. rock excavation........	1.05	1.00	1.40	1.50	.85	1.45	1.21
1,000 cu. yds. dry paving........	3.00	4.00	3.00	4.00	2.50	3.00	3.25
11,000 sq. yds. cobble gutters........	.75	1.50	.90	1.00	.50	.30	.82¼
750 cu. yds. dry masonry	4.00	6.00	4.00	5.00	4.00	4.00	4.50
500 cu. yds. rubble masonry........	6.75	7.00	5.50	7.00	7.00	6.50	6.62½
5,000 cu. yds. concrete masonry........	7.98	7.50	8.00	8.00	10.00	8.00	8.25
6,060 sq. ft. flagging	.25	.28	.30	.20	.25	.30	.26
12,700 lin. ft. 6-in. tile underdrain........	.18	.30	.40	.30	.25	.30	.29
340,000 lbs. steel for reinforcing concrete........	.05	.05	.06	.05	.05	.03½	.05
85,000 lin. ft. guard rails........	.25	.25	.25	.10	.25	.30	.23
250 cu. yds. broken stone and gravel........	6.00	2.50	4.00	3.00	2.00	3.00	3.42
Totals	$323,861	$336,665	$389,820	$399,710	$439,125	$458,100	....

Bond required, $130,000. Time, 36 months.

INDUSTRIAL NOTES.

MEAD-MORRISON MFG. CO. have removed their offices to Rooms 605-7 of the Monadnock Block, Dearborn St. and Jackson Boulevard.

J. G. WHITE & COMPANY, Inc., announces the opening of a branch office in the First National Bank Bldg., Chicago, Ill. Mr. Charles T. Mordock will be in charge as Manager.

THE BREAKWATER COMPANY OF OHIO, devoted to river and harbor improvements, working under the direction of the Engineers of the U. S. Army, has moved its headquarters from Cleveland, to the Arcade Building, Philadelphia.

IN EFFECT DECEMBER 1st, 1909, the offices of the Pressed Steel Car Co and Western Steel Car & Foundry Co. for Southern District, will be removed from Atlanta, Ga., to Munsey Bldg., Washington, D. C., Mr. L. O. Cameron, Manager of Sales, in charge.

HARPER MACHINERY CO., 50 Church St., New York, agents of the J. I. Case Threshing Machine Co., report a practical demonstration of a 20-HP. traction engine showing ability to cover a distance of 20 miles in 12 hours, the run having been made from Bloomfield to Somerville, N. J., under most unfavorable conditions.

THE CONTRACT for placing the concrete piles and foundations for the United States post-office that is to be erected at Manistee, Mich., has been awarded to the Raymond Concrete Pile Co., of New York and Chicago. James Knox Taylor, Supervising Architect, U. S. Treasury Department. Majestic Construction Company, general contractors.

AN ORDER for six 150-HP. three-cylinder Foos vertical engines has been placed by the Hazel-Atlas Glass Co., of Wheeling, W. Va., with the Foos Gas Engine Co., of Springfield. The Foos Company is working two shifts to the full extent of their equipment, but are unable to keep up with orders. A large addition to the plant is anticipated.

THE EAST PITTSBURG SHOPS of the Westinghouse Electric & Mfg. Co. are beginning work on a very heavy order for railroad motors for the Long Island Railroad which represent almost a million dollars. This calls for 260 motors of 200 HP. each, which will be used to equip part of the cars on the Long Island System, and is in line with the development work the Pennsylvania R. R. Co. is now doing in anticipation of the completion of the New York terminals and tunnels under the North and East Rivers.

H. K. PORTER CO. report they are running full force at full time. Recent orders booked include two 15 × 20, 30" gage steel works locomotives for the Carnegie Steel Company; one 16 × 20, 36" gage, and two 8 × 14, 56" gage locomotives for the Tennessee Coal, Iron & Railroad Company; four 20 × 26, 56½" gage locomotives for the Monongahela Connecting Railroad; six 17 × 20, 56½" gauge shifting locomotives for the Indiana Steel Company; one 14 × 20 and two 18 × 24, 56½" gage steel works locomotives for Jones & Laughlin Steel Company; four 12 × 16, 56½" gage steel works locomotives for the Dominion Iron & Steel Company; one 15 × 20 and one 16 × 20, 36" gage steel works locomotive for the Bethlehem Steel Company; one 13 × 18, 56½" gage locomotive for the Thompson Brothers Lumber Company, of Texas; together with a number of 9 × 14 and 10 × 16 contractors' locomotives for various parties, and several small compound air locomotives for coal mines; also several locomotives for Japan and other foreign countries.

THE PENNSYLVANIA LINES West of Pittsburg announce the following as the number of locomotives being built on the 1910 schedule: 30 Class "K2" passenger engines, at Altoona (Juniata shops); 13 Class "B6" shifting engines, at Altoona (Juniata shops); 50 Class "H8a" freight engines, at Baldwin Locomotive Works; 5 Class "H8a" freight engines, at American Locomotive Works; 27 Class "B29" shifting engines, at American Locomotive Works. Total, 125 locomotives.

THE ALLIS-CHALMERS CO., of Milwaukee, Wis., announces that it was the successful bidder for new blowing equipment for the works of the Worth Brothers Co., at Coatesville, Pa. The order calls for one high pressure vertical blowing engine (44 + 84 × 60 ins.), and two low-pressure vertical blowing engines (84 + 84 × 60 ins.). Each engine has two 20-ft. flywheels weighing 50,000 lbs. The air cylinders are equipped with Allis-Chalmers plunger type of valve gear. The company has also an order from the Pennsylvania Steel Co. for a twin-tandem gas driven blowing engine. The four gas cylinders are each 34 × 48 ins., and are supplied with blast-furnace gas having 85 effective B.T.U. The valves are of the poppet valve type. The two blowing tubes are of the Slick type and are each 64 × 48 ins.

THE CYCLONE DRILL COMPANY reports the largest volume of business for November in their history. Among shipments made are the following; Five drilling machines for blast hole work for the Panama Canal; six blast hole drills for the Rio Tinto Company for railroad construction in Spain; two blast hole drills for the Walsh Construction Company; two blast hole drills for Boynton, Church & McCoy; one large prospecting outfit for the Mangas Development Company; one core drilling outfit for Hayti; one blast hole drill for W. A. Denison for his railroad work in Texas; one prospecting machine for the Southern Development Company; one water well drill for Snider & Larson; one prospecting machine for J. D. Pitts; one water well drill for Francisco Gamez.

THE C. O. BARTLETT & SNOW CO., of Cleveland, Ohio, announce the following recent sales: Crow's Nest Pass Coal Co., Fernie, B. C., additional coal handling machinery; Maryland Steel Co., Steelton, Pa., conveyors and elevators; National Refining Co., Findlay, Ohio, conveyors and elevators; National Tube Co., Pittsburg, Pa., conveyors and elevators; Goldie & McCullough Co., London, Ont., machinery for manufacturing pearled barley; Winding Gulf Colliery Co., Cincinnati, Ohio, complete coal tipple and Greene self-dumping car haul, through F. C. Greene, Engineer; United States Smelting, Refining & Mining Co., Salt Lake City, Utah, ore dryer; Champion Rivet Co., Cleveland, Ohio, conveying machinery; International Salt Co., Utica, N. Y., salt conveyors; Pacific Coke & Coal Briquetting Co., Seattle, Wash., dryer and other machinery for manufacturing coal briquettes; James Cornhill, Chatham, Ont., brick dryer and conveyor; Upson Nut Co., Cleveland, Ohio, complete ash handling outfit.

TRADE PUBLICATIONS.

VITRIFIED PIPE SEWERS.—Blackmer & Post Pipe Co., St. Louis, Mo. 6 × 9 ins.; pp. 48; illustrated.

In a previous notice of this catalogue we stated that these pipes could be supplied in sizes up to 30 ins. in diameter. This was a misprint; the Blackmer & Post Pipe Co. is prepared to furnish vitrified pipe up to 42 ins. in diameter.

DERAILS.—Hayes Track Appliance Co., Geneva, N. Y. Paper; 7¾ × 10¾ ins.; pp. 8; illustrated.

This pamphlet contains principally a number of half-tone engravings showing the Hayes derails in use at various points near Chicago, for the protection of traffic on passing sidings, at bridges, etc., and in several cases operated in connection with interlocking plants. It is stated that over 30,000 of these devices are now in use on some 300 railways.

WELDED RAIL BONDS.—Electric Railway Improvement Co., 6001 Carnegie Ave., Cleveland, O. Paper; 6 × 9¼ ins.; pp. 28; illustrated.

The bonds at the rail joints are under this system welded to the rails, the welding being done either electrically or by pouring molten copper into molds fitted against the joints. The apparatus is mounted as a self-propelling car, and a number of views show the process in operation. This system is used extensively both in this country and abroad.

REINFORCED - CONCRETE PIPE.—Reinforced-Concrete Pipe Co., Jackson, Mich. Paper; 9¼ × 12 ins.; pp. 68; illustrated.

This pipe is made in sections, with telescopic joints, while the longitudinal bars of the sections are interlocked at the joints, and when the joints are cemented the pipe becomes practically monolithic. It is made in sizes of 24 ins. to 9 ft. diameter. The pipe has been used mainly for sewer work, but also for water supply and water power. Separate pamphlets relate to pipe having a reinforcement of wire mesh and rods, to a new form of interlocing joint, and to the use of the pipe at different places.

ARC LAMPS.—General Electric Co., Schenectady, N. Y. Bulletins 4676 and 4698. Paper; 8 × 10½ ins.; illustrated.

Bulletin 4676 is largely devoted to the use of enclosed arc lamps for interior illumination on direct and alternating-current constant voltage circuits. There is some description of the lamp and auxiliary mechanism.

A headlight, with a luminous arc, for street railway cars, is described in Bulletin 4698. The need of such a powerful headlight is shown by the demands of managers of interurban lines for these lamps. The principal advantage of this type is its high efficiency.

RAILWAY SHOP AND YARD CRANES.—Whiting Foundry Equipment Co., Harvey, Ill. Paper; 6 × 9 ins., pp. 24; illustrated.

The cranes illustrated and briefly described in this pamphlet are of great variety. Besides different styles of overhead traveling cranes, there are fixed and traveling jib cranes, wall and bracket cranes, portable cranes, electric locomotive cranes, and trolley carrier systems. Among the specialties are gantry cranes for handling locomotives, and also for handling coal and freight. Turntables, transfer tables, and the M. C. B. drop-test machine for axles, couplers, wheels, etc., are included.

FROGS, SWITCHES AND SWITCH LAYOUTS.—St. Louis Frog & Switch Co., St. Louis, Mo. Cloth; 7¼ × 5 ins.; pp. 159; illustrated.

Various forms of frogs, switches and crossings for steam and electric railways occupy a large proportion of this publication, and in some of these designs manganese steel is used for the parts subjected to severe wear by the wheels. Switches for street railway track are included; and also switchstands, derails, anti-creeping devices, etc. Among the specialties are portable track for industrial railways, and light-rail track equipment for logging, mining, industrial and plantation railways. About 50 pages are devoted to rules and layouts for switches and crossings, widening gage and elevating rails on curves, and tables of track material.

SWITCHBOARD APPARATUS. — General Electric Co., Schenectady, N. Y. Bulletins 4700 and 4681. Paper; 8 × 10½ ins.; illustrated.

In Bulletin 4700 are descriptions of types of volt-meters and ammeters for use on alternating and direct-current switchboards. These have been designed to meet a demand for moderate-priced and fairly accurate instruments. The principal features are the large dials, wide pointers and legible scales. The ammeters are made in capacities up to 200 amperes. The voltmeters are for voltages up to 750. The dimensions of the instruments and full-size reproductions of the scales are given.

Panel boards and cabinets, or small distributing switchboards, are described in Bulletin 4681. This large bulletin illustrates and gives the prices of all the panel boards manufactured by this company. The bulletin is of greatest service to architects, builders, contractors, and jobbers in general.

SEVENTY-FIVE YEARS OF ENGINE BUILDING.—The C. & G. Cooper Co., Mt. Vernon, O. Stiff paper; 7 × 8½ ins.; pp. 46; illustrated.

This pamphlet is worth particular commendation for its historical value. Every business enterprise has a history of its own, and that history is often indissolubly connected with the general history of industrial development. It is a commendable thing for a concern which has reached the dignity of 75 years, or even at the passing of the half-century or quarter-century mark, to record by some published monograph the chief facts in its development and the personalities of those who have figured in it most conspicuously. Among the remarkable facts recorded in this little book is the story of an iron furnace still in operation at Oak Hill, near Jackson, O., using a blowing engine and steam plant originally installed by the Cooper Co. 54 years ago. The iron made by the furnace is hauled to the railway, three miles away, by ox teams.

THE RAILWAY TRANSITION SPIRAL

By PROF. ARTHUR N. TALBOT
University of Illinois

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CURRENT PRICES OF ENGINEERING MATERIALS

Supplement to ENGINEERING NEWS. New York, December 2, 1909.

PRICE CHANGES AND THE BUSINESS OUTLOOK.

Iron and steel prices have continued the upward movement, but pig iron is steady rather than higher, although an advance of 50 cts. a ton was made in No. 2 Northern Foundry at Chicago. Structural steel shapes have advanced $1 a ton, and steel billets are from $1 to $2 a ton higher than on Nov. 1. Sheets and plates have advanced $2 per ton, and tin and terne plates are 10 cts. a box higher.

Metals in general are in better demand, the buying of copper having been particularly good, and the price of this metal advanced sharply, only to suffer a decline at the end of the month. Aluminum is in good requisition, but low in price. Lead is higher.

In the lumber market the volume of business shows a large increase and prices are stiffening. The mills in Canada have generally advanced prices about $1 a thousand. In the South, too, there have been notable increases. The price of brick has declined, owing to unfavorable weather the latter part of the month.

Labor is well employed. It is practically impossible to get workmen to leave New York City unless all transportation charges are paid in advance.

In the tile pipe market prices are unsatisfactory, and some makers have shut down their plants waiting for a better demand. Cement prices are stiff in the East, but very uneven west of Pittsburg.

The Standard Oil decision, so called, has caused a sharp decline in stock exchange prices and some advance the opinion that, if carried to its logical conclusion it will seriously retard business. Others believe that it will lead to the repeal, or modification, of the "Sherman law" as recommended by President Taft.

Much new work is in sight. Contracts have been signed for the construction of the Fourth Ave. subway in Brooklyn, which has been long delayed. The State Engineer of New York has recently asked for bids on some 450 miles of macadam and other roads. In the railroad field the Long Island has made the importannt announcement that it will spend about $3,000,000 in double tracking and electrification of the Oyster Bay Branch.

Gravel road construction in Indiana has been stopped by a recent decision of the Supreme Court of that stete, which declared the three-mile road law unconstitutional.

The President of the Water Board of New York City recently advertised for bids for construction work on the Catskill Aqueduct. This will probably amount to $2,500,000.

The Superintendent of Public Works of the State of New York is advertising for bids for the construction of lock and other gates on the Barge Canal, for 11.06 miles of canal and 3.32 miles of dredging.

An important recommendation made by Secretary of the Interior Richard A. Ballinger in his annual message was that Congress authorize the issuance of bonds up to $30,000,000 for the Reclamation Service.

Activity in the building trades is more pronounced than ever. Returns from 82 leading cities in the country show that the plans filed during the first ten months of this year call for structures having an estimated cost of $679,000,000, compared with $465,000,000 in 1908 and $505,000,000 in the corresponding months of 1907.

The relinquishment of the St. Louis & San Francisco R. R. by the Rock Island Co. is another voluntary saparation of the component parts of a holding company. It may prove to be one of many similar dissolutions.

LABOR.

LABOR.—The demand for outside labor in New York City is unusual for this time of year. Laborers for general excavating, smooth dry surface work, command $1.50 to $1.75 per day; for wet or rough work they demand $1.75 to $1.85, and tunnel workers are asking $2. Good foreman are scarce and in good demand at $2.25 to $2.75. These prices are all for eight hours' work.

It is difficult, if not impossible, to get any class of laborers or mechanics to leave New York unless all transportation charges are paid in advance.

Carpenters have refused $3.60 for eight hours on union work in nearby towns.

The call for more laborers has been felt in Europe and 15,548 emigrants arrived last week. The total arrivals of steerage passengers at the port of New York since Jan. 1, is 859,459, an increase of 493,767 compared with the corresponding time last year.

CEMENT, LIME AND BRICK.

PORTLAND CEMENT.—Business has been very quiet, no large contracts having been reported for a couple of months. The agreement, as to prices, has been well maintained in the East or, to be more exact, in the A territory which is east of Harrisburg, Pa. In the neutral belt lying between Harrisburg and Pittsburg there has been a fair understanding as to prices. In the West the sales agents for the different companies have been anxious for business and have gone after it with the most potent weapon at their command, low prices. Stocks are low and some producers have stopped manufacturing, for the time being. As stated, prices here are firm and for delivery within lighterage limits New eYrk City is unchanged at $1.48 per bbl. in 250-bbl. lots. In Philadelphia Portland cement is sold at $1.42 and in Boston at $1.52. In both cities the quotation is f.o.b. cars. Alsen's Portland cement is quoted at $2.40 New York City and Dyckerhoff's at $2.43.

NATURAL CEMENT.—Trade is quiet and there is very little new business. Prices are steady at 80 cts. per bbl., delivereu within the lighterage limits of New York City.

LIME.—The market is fairly active but hydrated lime is in better demand than any other. Quotations are steady and for 500-bbl. lots New York City the following prices prevail: State common, per bbl., 75 cts.; Rockland-Rockport common, 92 cts.; Rockland-Rockport special, 320 lbs., $1.37; select finish, 350-lb., net, $1.60; New Milford, $1.30; hydrated, per ton, $9.

BRICK.—The storm and the holiday last week has resulted in a lessened demand and, in consequence, prices have trended downward. Two weeks ago the price was as high as $6.50 per M., now they can be had at $5.75 per M. These prices are for full cargo lots of about 400 M., of Hudson River common brick delivered alongside of dock New York City.

Seconds and hard brick can be had at $4.25 to $5, according to quality. John B. Rose has added to his already large holdings of brick-making plants by purchasing, at receiver's sale, the Bartlett yards at both Roseton and Hudson, N. Y. Buff brick are held at $22 to $28, according to quality and white at $25 to $30.

CRUSHED STONE, SAND AND GRAVEL.

CRUSHED STONE.—The demand has been better this fall, in the vicinity of New York City, than in a long time. This applies not only to stone for concrete, but for road-making purposes, the latter being particularly active in northern New Jersey. Prices vary according to size and quality but, in general, are from 85 cts. to $1 per cu. yd., delivered along side of dock. These prices are for full cargo lots of about 500 cu. yds.

SAND.—Clean sand is quoted at 30 cts. per cu. yd., delivered on dock New York. This price is for a cargo lot of 400 to 600 cu. yds.

GRAVEL.—Prices are steady and there is a fair demand in this market. Washed gravel is sold at 65 to 75 cts. per cu. yd., delivered on dock New York. These prices are for cargo lots of 400 to 600 cu. yds. That prices may be advanced about Dec. 20 is the opinion of some dealers.

STONE.

STONE, HUDSON RIVER BLUE.—Considerable work is under way in New York City, calling for stone, and the demand is especially good for delivery in New Jersey and points on the Hudson River. Some inquiries are in the market for shipment to the South and indications are that these will be taken in spite of the high freight rates. Prices are higher than they were earlier in the year, but in general quotations are as follows delivered alongside of dock New York City: Blue stone flagging, 6 cts. per sq. ft., per in. of thickness; for flagging 3 ins. thick the price would be 18 cts. per sq. ft., although this is shaded in some instances to 17 cts., where the specifications are not very rigid. For work outside of New York City where 2-in. stone will be accepted it is selling at 12 cts. per sq. ft.

Sewer bottoms 5 ft. sq. and 3 ins. thick are held at 25 cts. per sq. ft.; curbing, 5 × 16 ins., is held at 35 cts. per lin. ft.; for curbing 5 × 20 ins., 47 cts. per lin. ft. is asked.

Belgian Bridge, 6 × 24 ins., is quoted at 60 cts. per lin. ft., when 5 ins. thick and 72 cts. per lin. ft. when 6 ins. thick.

Building and foundation stone is sold at 72 cts. per cu. ft. for permiscous shapes and at 84 cts. for dimension stone.

GRANITE.—The demand is good and prices are strong. For random granite block delivered within lighterage limits, New York; 40 cts. per cu. ft. is obtained.

IRON AND STEEL.

PIG IRON.—The anxious haste displayed by buyers last month has passed, particularly in the foundry iron markets. Prices are about the same as they were a month ago and makers of pig iron have enough orders on their books to keep them going until well into the second quarter of next year. New orders, however, are not coming in with any great rapidity and buyers are trying to make capital of this. Sellers point to the unprecedented activity at the furnaces and the fact that iron is being made in a larger tonnage, every week, than ever before. The complaints about the price of iron come from users of foundry as they bought largely when prices were much lower and have based their selling prices on the low cost of the raw material. Buyers of steel-making irons care little about the price as long as they are sure of getting the material when desired. Iron ore prices will be higher next year; the amount of the advance has not been determined but it will probably be about 50 cts. a ton. Some large inquiries from pipe foundries are in the market.

Northern No. 2 foundry has recently advanced 50 cts. per ton in Chicago. Otherwise prices are little changed since the first of last month; the following quotations being for lots of 100 gross tons and over f. o. b., cars at the points named: Foundry iron in Cincinnati, southern No. 1, $18.25; southern No. 2, $17.75; southern No. 4, $16.75. In Philadelphia, northern foundry No. 2 is sold at $19 to $19.50. In New York City northern foundry No. 2 is held at $18 to $18.25. In Chicago northern foundry No. 2 is sold at $19.50 to $20. In Pittsburg Bessemer is held at $20 to $21 and basic at $18.25 to $18.50.

STRUCTURAL MATERIAL.—Prices of standard sections were advanced $1 a ton about the first of November, but business has in no way been retarded by this. Numerous projects are being figured on all over the country and some builders are complaining of the slow shipments being made by the mills. Plain material deliveries are particularly unsatisfactory. Some of the larger business, for which bids were asked or contracts closed in the last month, include 4,500 tons in Los Angeles; 20,000 tons for Mexican railroads; 16,000 tons for a bridge at St. Louis; 10,000 tons for a Chicago building, and about 50,000 tons in New York City, of which 30,000 tons will be for the Fourth Ave. subway in Brooklyn. In some quarters the idea is advanced that the low price at which some fabricated work is taken leads to the belief that the base price of shapes is shaded to obtain a particularly desirable order.

The following prices are quoted in cts., per lb., f. o. b. Pittsburg: I-beams and channels, 3 to 15-in., 1.55; over 15-in., 1.65; H-beams over 8-in., 1.75; angles, 3 to 6-in., 1.60; angles over 6-in., 1.65; zees, over 3-in., 1.60; deck beams and bulb angles, 1.80.

STEEL RAILS.—Rail business has been very active, especially for the standard sections. The Great Northern has bought 40,000 tons; the New Haven 15,000 tons; the Harriman lines have closed for 20,000 tons, and the Lehigh Valley has contracted for 15,000 tons, all for next year's delivery. The "Iron Age" is authority for the statement that: "Rail purchases for 1910 are estimated to be close to 1,500,000 tons thus far." Prices are the same as have been ruling for years, standard sections being quoted at $28 per ton at mill. Light rail prices are as follows, per ton: 8 to 10-lb., $32; 12 to 14-lb., $29; 16, 20 and 25-lb., $28; 30 and 35-lb., $27.75, and 40 and 45-lb., $27, all f. o. b. Pittsburg. Relaying rails can be bought at $22 to $28, according to quality. These prices are for 250-ton lots and over, and for small lots premiums of 50 cts. per ton and more are demanded.

SPIKES AND TRACK BOLTS.—Some large orders have been placed in the last month. The Erie bought 20,000 kegs of spikes, the deliveries to be made next year. Standard spikes are to be had at $1.75 per 100 lbs., in car lots, both in Chicago and Pittsburg. For next year's delivery $1.80 is asked. Track bolts with square nuts are held at 2.30 to 2.50 cts. per lb., in car lots, in Chicago and Pittsburg. For angle bars 1.50 to 1.55 cts. a lb. is asked.

FREIGHT RATES.—The freight rates on structural shapes from Pittsburg in carloads, per 100 lbs., are as follows: New York, 16 cts.; Philadelphia, 15 cts.; Boston, 18 cts.; Buffalo, 11 cts.; Cleveland, 10 cts.; Cincinnati, 15 cts.; Indianapolis, 17 cts.; Chicago, 18 cts.; St. Paul, 32 cts.; St. Louis, 22½ cts.; New Orleans, 30 cts.; Birmingham, Ala., 45 cts. To the Pacific Coast, 80 cts.

PLATES.—Steel plates are in very active demand not only from shipbuilders but from steel pipe makers. On Dec. 2 bids will be opened by the Board of Water Supply (Catskill Aqueduct) for 6,300 tons of plates for seven 9½-ft. siphons, about 19,000 ft. total length, the plates ranging from 7/16 to ¾-in. It is understood that the board will advertise for bids before the end of the year for 5,000 tons of plates from 7/16 to 9/16-in. for another seven siphons aggregating 14,000 ft. and ranging from 9 ft. 9 ins. to 11½ ft. diameter. The price quoted for tank plates, ¼-in. thick, 6¼ ins. up to 100 ins. wide, is 1.55 to 1.60 cts., base, f. o. b., Pittsburg, with $2 to $3 bonus a ton on quick shipments.

STEEL CASTINGS.—The general price of steel castings is largely determined by the size of the order and the shape of the pattern. In most large centers, however, it is possible to get open hearth castings weighing from 100 to 500 lbs. for 3.60 to 5 cts. per lb. For crucible castings weighing within the above limits 7¾ to 9 cts. per lb. is asked.

PILING, SHEET STEEL.—The price is firm, in sympathy with other steel products, and for carload lots 1.60 to 1.70 cts. per 100 lbs. is asked, f. o. b. Pittsburg. For a particularly large, or desirable, order the lower price might be somewhat shaded.

WIRE ROPE, GALVANIZED.—Prices were advanced Nov. 20 about 10% on plain wire rope and 7½% on galvanized. The discount to the larger trade and consumers in carload lots is 42½% and 2½% from list. The net prices in Pittsburg are as follows:

Diameter in inches.	Cts., per ft. 7 Wires to Strand.	12 Wires to Strand.
1¾	25.	26.
1⅝	21.5	22.5
1½	20.	21.
1⅜	15.2	16.2
1¼	13.5	14.
1	7.75	8.8
⅞	6.75	7.8
¾	5.1	5.5
⅝	4.5	5.1
½	3.4	4.

ROOFING, CORRUGATED STEEL.—Prices are firm. Painted roofing sheets, No. 28, are $1.60 per 100 sq. ft. of roof surface. Galvanized sheets, No. 28, are $2.85 per 100 sq. ft. of roof surface. Both prices are for carload lots f. o. b. Pittsburg.

FENCE WIRE.—The market is firm and for large lots, carload and over, the following prices are quoted f. o. b., Pittsburg:

	Annealed.	Galvanized.
Nos. 0 to 9	$1.60	$1.90
No. 10	1.65	1.95
No. 11	1.70	2.00
No. 12	1.75	2.05
No. 13	1.85	2.15
No. 14	1.95	2.25
No. 15	2.05	2.65
No. 16	2.15	2.75

MERCHANT PIPE.—Some large work has recently come out. Prices are steady since the advance early last month and, generally, are well maintained. The shading of quotations is being done, principally, by dealers who have large stocks on hand. The following prices are for large lots at mill, Pittsburg, and represent a discount from list of 79% on black and 69% on galvanized:

	Steel Pipe in Cts., per ft., f. o. b. Mill. Black.	Galvanized.
1-inch	3.46	5.11
1¼-inch	4.72	6.97
1½-inch	5.67	7.37
2-inch	7.56	11.16
2½-inch	11.07	18.82
3-inch	15.85	23.40
4-inch	22.78	33.48
5-inch	30.55	44.95
6-inch	39.48	57.28

CAST-IRON PIPE.—The market is very firm and, in spite of lessening activity in pig iron, an advance is not unlikely. In the far west there is an excellent demand for the smaller sizes and, particularly, gas pipe. Prices of water pipe are as follows per net ton f. o. b. cars at foundry: Birmingham, Ala., 4 to 6-in., $26; 8 to 12-in., $25; over 12-in., $24. In Chicago, 4-in., $28.50; 6 to 12-in., $27.50; 16-in. and larger, $26.50. In New York, 6-in. is quoted at $26. Gas pipe is held $1 per ton higher in all markets.

SHEETS.—The demand for black and galvanized sheets is especially active and large tonnages have been contracted for by consumers and jobbers. This branch of the steel trade, with which is included tin plate, has been the most active of any of the lighter lines. In spite of the large volume of business, deliveries are being made with a fair degree of promptness. For carload lots and larger the following prices prevail f. o. b. mill:

	Cts. per lb. Black.	Galvanized.
Nos. 3 to 8	1.65	....
Nos. 9 and 10	1.70	....
Nos. 11 and 12	1.75	....
Nos. 13 and 14	1.80	2.35
Nos. 15 and 16	1.90	2.45
Nos. 17 to 21	2.20	2.75
Nos. 22 to 24	2.25	2.90

NAILS.—The price of nails, 20d. and larger, in kegs of 100 lbs., from jobbers' store are as follows: New York, wire and cut nails, $2; Chicago, wire and cut nails, $2.03. Spikes are held 10 cts. per keg higher.

LAG SCREWS.—The price of lag and coach screws to the retail trade is represented by a discount of 75% and 10%. The net prices are as follows:

	Price per 100 ½-inch.	¾-inch.	1-inch.
3½-inch	$1.18	$2.40	$5.00
4-inch	1.25	2.55	5.25
4½-inch	1.34	2.70	5.50
5-inch	1.40	2.85	5.80
6-inch	1.58	3.20	6.40
7-inch	1.73	3.50	7.00
8-inch	1.88	3.85	7.60
9-inch	2.05	4.10	8.20
10-inch	2.25	4.45	8.75
11-inch	2.35	4.70	9.30
12-inch	2.60	5.00	9.90

BOLTS.—The price of common carriage bolts to the retail trade and larger consumers is 70% and 7½% discount from list on bolts ⅜ × 6 ins., and smaller. The lowest price is 65% and 5% discount for larger and longer bolts. The net prices are as follows:

Length in inches.	Diameter in inches—Net price per 100 ⅜	½	¾
4	$0.74	$1.22	$2.86
5	0.83	1.36	3.15
6	0.92	1.52	3.50
7	1.22	1.65	3.75
8	1.34	1.80	4.25
9	1.45	1.95	4.50
10	1.55	2.20	4.75
12	1.75	2.40	5.25
14	1.90	2.70	5.90
15	2.05	2.85	6.25
18	2.40	3.25	7.20
20	2.60	3.50	7.75

METALS.

COPPER.—More copper was sold during the month of November than in any single month since the spectacular decline from 26 cts. in 1907. Consumers, both domestic and foreign, bought largely for present and future requirements. They purchased not alone because they feared the market would go higher, but against orders which they had in hand, for the wire business has been good. There is no doubt that selling agents magnified the amount of business transacted, and urged some belated buyers to take on more metal than was needed. Still it was a genuine buying movement of no mean proportions. The statistics compiled by the Copper Purchasers' Association, issued Nov. 10, show that stocks on hand at all points in the United States increased only 2,000,000 lbs. during October. At the same time, domestic consumption showed an in-

crease of 14,000,000 lbs. The report of consumption in November will undoubtedly be better, from the purchaser's standpoint, and it may be that the tide has turned and from now on stocks will show a constantly decreasing surplus month by month. In Europe the situation has improved, but owing to the plethora of metal there the initiative for higher prices must come from this side.

Recovery from the depression will be slow, because consumers have only begun to use copper in large quantities and the amount of stock piled up in America and Europe is appalling. A phase of the situation which has not received the attention it deserved is the increasing interest rate for money. When funds were begging in Europe at 2% and 3%, it was easy to finance large quantities of copper on very favorable terms. Now that money is needed for mercantile pursuits and active business, and the rate has advanced to 5%, it is more difficult and costs considerably more to carry copper in European warehouses.

Reference to the copper market this month would be incomplete without some notice of the proposed consolidation of copper producers. This was heralded far and wide the first part of the month and consumers were urged to buy for that very reason, but after the Circuit Court decision against the Standard Oil Co. reports of merger and combination ceased.

The price of electrolytic copper the first of the month was about 13 cts., advancing to 13¾ and then declining toward the latter end to 13¼; the United Metal Selling Co., however, quoted 13¾ cts. on the last day of the month.

ROOFING COPPER.—In sympathy with higher prices for ingot metal the quotation for roofing copper was advanced from 17 to 18 cts. on Nov. 23. This price is higher than quotation for the ingot metal warrants, but the few rollers of copper have made another agreement as to prices.

WIRE, COPPER TRANSMISSION.—Prices have advanced sharply, and the demand is much better than earlier in the year. The low level of 14.50 cts. per lb., base, quoted early in September was followed by three successive advances, and on Nov. 23 the price of 15.25 cts. was established. These quotations are for No. 8 wire and heavier, both bare and insulated, in carload lots New York City. Grooved trolley wire is held at an advance of 0.25 cts. per lb. over the base price.

LEAD.—More or less unevenness prevails in this market but this has been the condition for some time. The American Smelting & Refining Co. quote lead for shipment in 30 days in 50-ton lots at 4.40 cts. Outside producers are asking 4.42½ to 4.45 cts. for prompt shipment. The favorable weather conditions that have prevailed for some time have made much outside work possible that, in ordinary years, would have been closed down long ago.

LEAD WOOL.—This is in fair demand and the United Lead Co. quotes it in ton lots at 8½ cts. Somewhat higher prices are asked in New York City on account of deliveries here.

LEAD PIPE.—The demand is limited and prices are more or less nominal. To large consumers and jobbers the price is 5 cts. a lb., and small consumers are asked 5.50 cts. by manufacturers.

ALUMINUM WIRE.—The leading producer has recently taken the contract for a large amount of wire in the Niagara Falls district. The price is firm at 31 cts., base.

CLAY PRODUCTS.

PIPE, VITRIFIED CLAY.—At present there are no stated prices, each manufacturer seeming to puzzle himself on the question as to how low he must go to get the order. Discounts from list for 3 to 6 in. vary from 80% to 82½%; 8 to 12 in., 77½% to 80%; 15 to 18 in., 72½% to 75%; 20 to 24 in., 65% to 70%. This is a rather wide variation, but conditions are unsettled; some makers have closed down and, now, are only shipping from stock. The market appears likely to remain quiet until spring. The above discounts represent the following net prices f. o. b. cars at point of manufacturer: 3-in., 2.75 to 3.20 cts.; 4-in., 3.40 to 4 cts; 5-in., 4.25 to 5 cts.; 6-in., 5.20 to 6 cts.; 8-in., 10 to 11 cts.; 12-in., 20 to 22 cts.; 15-in., 31.05 to 33.75 cts.; 18-in., 39.10 to 42.5 cts.; 20-in., 67.50 to 78.75 cts.; 21-in., 75 to 87.50 cts.; 22-in., 82.50 to 96.25 cts.; 24-in., 97.25 to 113.75 cts.

DUCT, TELEPHONE AND TELEGRAPH.—Prices are higher than those ruling during the early part of the year. Delivered, within Lighterage Limits, New York City, duct is sold at 4 to 5 cts. per lineal ft.

LUMBER.

The buying by railroads and car building companies has been a feature of the market, especially during the last month. The railroads are buying yellow pine and hardwoods in large quantities and ties are also in excellent demand. Reports from North Carolina are to the effect that stocks are not heavy, but occasional concessions are made. Buyers there are said to be getting anxious to place their orders for future delivery. In Buffalo it is remarkable the way hardwood orders are coming in. The demand is principally for oak, poplar, chestnut and ash.

The demand for North Carolina pine in Boston does not show much life. Every day, of course, there is some business being transacted, but the volume on the whole is disappointing. There is still considerable variation in the prices quoted. For example, it is reported that 6-in. roofing has been purchased within a few days at $17 per M., although it would seem that $17.50 was probably nearer the figures—and perhaps $18.

Rough lumber was advanced $1 per M. all over Western Canada Nov. 28. The mills are calling in salesmen, owing to a rush of orders. Export mills in British Columbia report a largely increased business in the United States, this being one cause for the advance. Good authorities state that another advance in prices will take place before spring.

The manufacturers in the vicinity of St. Louis have been so long in doubt as to the outcome of market conditions, that they seem to be constantly disappointed at results and are continually contriving to do all in their power to mend matters. They are curtailing at the mills, and have brought production down to about 35 to 50% of normal. Then the car shortage has caused enforced curtailment, and yet the cry is to lessen the cut.

YELLOW PINE.—Prices of yellow pine are firmer and, for long pieces, the demand is excellent. For large lots prices are as follows:

LONG-LEAF YELLOW PINE.
(f.o.b. New York.)

	Price per M. in car lots.	
	Merchantable.	Prime.
12 × 12-in—24 ft.	$30.00	$32.00
10 × 10-in.—24 ft.	27.50	29.50
8 × 8-in.—24 ft. 6 × 6-in.—24 ft. 3 × 10-in.—24 ft.	25.00	27.00
3 × 8-in.—24 ft.	23.00	25.00
2 × 10-in.—24 ft.	25.00	27.00
2 × 8-in.—24 ft.	23.00	25.00

TIES.—In spite of the fast approach of winter, railroad ties are in excellent demand. Many roads purchase a part of their ties from farmers and lumbermen along the route but for such ties as are sold in New York the following prices prevail in car lots:

	Cts. each.
7 × 9-in.—8 ft. 6 ins.	77 to 78
7 × 8-in.—8 ft. 6 ins.	75 to 76
7 × 9-in.—8 ft.	76 to 77
6 × 9-in.—8 ft.	72 to 73
6 × 8-in.—8 ft.	65 to 68

PILES.—Pine piles are in excellent demand and are sold at the following prices f.o.b. Norfolk: 60 to 64 ft., $7; 65 to 69 ft., $8; 70 to 74 ft., $9.50; 75 to 79 ft., 80 ft. and longer, $14.

ASPHALTUM, PITCH AND OAKUM

ASPHALTUM.—Prices are firm and the market is steady, in some quarters the feeling prevails that quotations are on the up trend and an advance may be made at any time. For California asphaltum, to arrive, $25 to $30 per ton is asked f. o. b. New York City. At point of shipment it is held at $15 to $19. Fort Arthur fluxing asphaltum is obtainable at $13 to $16 New York City. For Trinidad $20 to $25 is asked.

PITCH.—For carload lots of pitch New York City delivery, $14 to $15 per net ton is asked.

OAKUM.—The best grade of oakum is held at 6½ cts. per lb., from store; U. S. Navy is held at 6 cts., while plumbers' can be had at 2¾ to 3 cts. lb.

OILS AND PAINTS.

SPIRITS TURPENTINE.—Prices have advanced slightly from the low level ruling early in summer. This has been because of the shortage in supply and a much better demand. In New York, five-barrel lots are held at 58 to 59 cts. a gallon, and in Savannah at 54 to 54½ cts.

LINSEED OIL.—Despite the rapid advance since early summer, prices have been raised within the last week an additional 2 cts. per gallon. The shortage of the flaxseed crop is the most potent influence in advancing quotations, but an excellent demand for the material aids crushers in putting the price to a high figure. City raw from American seed is quoted in five-barrel lots at 65 to 66 cts. per gallon, out-of-town raw at 64 to 65 cts. per gallon; in both cases, boiled oil is sold at an advance of 1 ct. per gallon over raw.

PAINTS.—The demand for white lead in oil is moderate. The market is steady at the following quotations: In 100, [illegible] and 500-lb. kegs, 6.75 cts. per lb.; in [illegible] and 50-lb. kegs, 7 cts. per lb., with the usual advances on smaller packages. Consumers of dry white lead are showing some disposition to place contract orders for shipment during the coming year, owing to the firm appearance of the market. Brown metallic is $16.50 to $22 per ton; red metallic can be had at $14 to $18 per ton. American Venetian red is sold, in ton lots at 75 cts. to $1.50 per 100 lbs.; English at $1.15 to $1.60 per 100 lbs.

MISCELLANEOUS.

PAPER.—Building and waterproofing papers are in better demand and prices are firmer. The following quotations are named for carload lots f.o.b. New York City: For 1-ply, which is sold by the net ton, $31. Other grades are sold by the roll of 108 sq. ft., 2-ply standard weighing 40 lbs., to the roll is 45 cts.; 2-ply extra heavy, weighing 45 lbs. to the roll, is 55 cts.; 3-ply standard, weighing 60 lbs. to the roll, is 65 cts., and 3-ply extra heavy, weighing 70 lbs. to the roll, is 75 cts.

ROOFING SLATE.—The following prices are quoted per square, 100 sq. ft., roof measurement, f.o.b., quarries: No. 1 sea green from Vermont, 14 × 10 ins. to 24 × 14 ins., $4; No. 1, genuine Bangor ribbon from Pennsylvania, 12 × 8-in. to 20 × 10-in., $4.25; 16 × 12-in. to 20 × 12-in., $4; No. 2, Brownville from Maine, 16 × 8-in. to 24 × 14-in., $6.

ROPE.—The Manila fiber market is strong. Some manufacturers are quoting pure manila rope at 8½ cts., base, per lb. A more general price is an 8-ct. basis. The market is represented by the following quotations: Pure manila of the highest grade, 8 to 8¼ cts. per lb.; lower grades of pure manila, ¼ to ¾ ct. less; pure Sisal of the highest grade, 7¼ to 7¾ cts. per lb., base; commercial grade, 6¼ to 6½ cts. per lb.

TARVIA.—The Barrett Mfg. Co. is selling A & X tarvia in bbls. at 8½ to 9½ cts. per gal; for B grade, in bbls., 7 to 8 cts. is quoted. These quotations are f.o.b. New York City.

LIGHTERAGE LIMITS.—The free delivery or "Lighterage Limits" in New York City are as follows: In Manhattan, from a point opposite the Fort Lee ferry south along the Hudson River around the Battery and north along the East and Harlem rivers to the Jerome Ave. bridge at 155th St. In New Jersey, south from Fort Lee ferry to Bayone City; points on the north and east shore of Staten Island between Bridge Creek (Arlington) and Clifton, both inclusive, and including Elm Park, Eristina and Shooters Island. In Brooklyn, from 69th St., Bay Ridge, north to Pot Cove, Astoria, Long Island City.

For other Proposal Advertisements see pages 51, 52, 53, 54, 56, of Advertisements and Construction News page 200.

QUEBEC BRIDGE.

TENDERS FOR SUPERSTRUCTURE.
DEPARTMENT OF RAILWAYS AND CANALS, CANADA.
NOTICE TO BRIDGE BUILDERS.

Contractors for Bridge Superstructure are invited to visit the office of the Board of Engineers in the Canadian Express Building, Montreal, Canada, after January 3d, 1910, where information may be had to enable them to prepare bids for the superstructure of a 1,758 feet span Bridge 88 feet in width.

Bids will be received on the specification and for the design shown on the plans as prepared by the Board.

The Contractor is invited to submit alternative designs which must conform to the conditions laid down in the general specification.

By order,

L. K. JONES,
Secretary.

Department of Railways and Canals,
Ottawa, 24th November, 1909.

KENSICO DAM.

New York, N. Y.

Sealed bids will be received by the Board of Water Supply, in Room 910, 299 Broadway, New York, until 11 A. M. on December 21, 1909, for Contract 9, for the construction of Kensico dam, a high masonry dam across the valley of the Bronx River, and appurtenant works, including New Rye reservoir, New Rye dike, Bronx-Rye tunnel, Bronx dike and Rye pipe-line. The work is located about three miles north of White Plains, near Valhalla station, on the Harlem division of the New York Central and Hudson River Railroad, Westchester County, New York.

At the above time and place the bids will be publicly opened and read. Pamphlet containing information for bidders and pamphlets of contract drawings can be obtained at Room 906, at the above address, by depositing the sum of ten dollars ($10) for each pamphlet. For further particulars, see Information for Bidders.

JOHN A. BENSEL,
President;
CHARLES N. CHADWICK,
CHARLES A. SHAW,
Commissioners of the Board of Water Supply.
J. WALDO SMITH,
Chief Engineer,
THOMAS HASSETT,
Secretary.

STRUCTURAL STEEL.

OFFICE OF THE BOARD OF WATER COMMISSIONERS.

Detroit, Mich., November 30, 1909.

Sealed proposals will be received at the office of this Board up to 12 M., of Tuesday, December 28th, 1909, for furnishing and erecting the structural steel and iron work for ENGINE ROOM building of the NEW PUMPING STATION of this Board, in accordance with the plans and specifications of the Architects, Smith, Hinchman & Grylls, of this city, copies of which can be obtained upon application to this office or to the Architects on and after December 7th, 1909.

A CERTIFIED CHECK payable to the order of this board in the sum of $2,000.00 or a BIDDING BOND in the same amount must accompany each proposal.

The right is reserved to reject any and all bids.

For further information apply to,

BENJ. F. GUINEY,
Secretary.

TREASURY DEPARTMENT, Office of the Supervising Architect, Washington, D. C., Dec. 1, 1909.—Sealed proposals will be received at this office until 3 o'clock P. M. on the 12th day of January, 1910, and then opened, for the extension, remodeling, etc. (including plumbing, gas piping, heating apparatus, electric conduits and wiring), of the U. S. Post Office and Court House at Bristol, Tenn., in accordance with drawings and specifications, copies of which may be had from the Custodian at Bristol, Tenn., or at this office at the discretion of the Supervising Architect. JAMES KNOX TAYLOR, Supervising Architect.

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